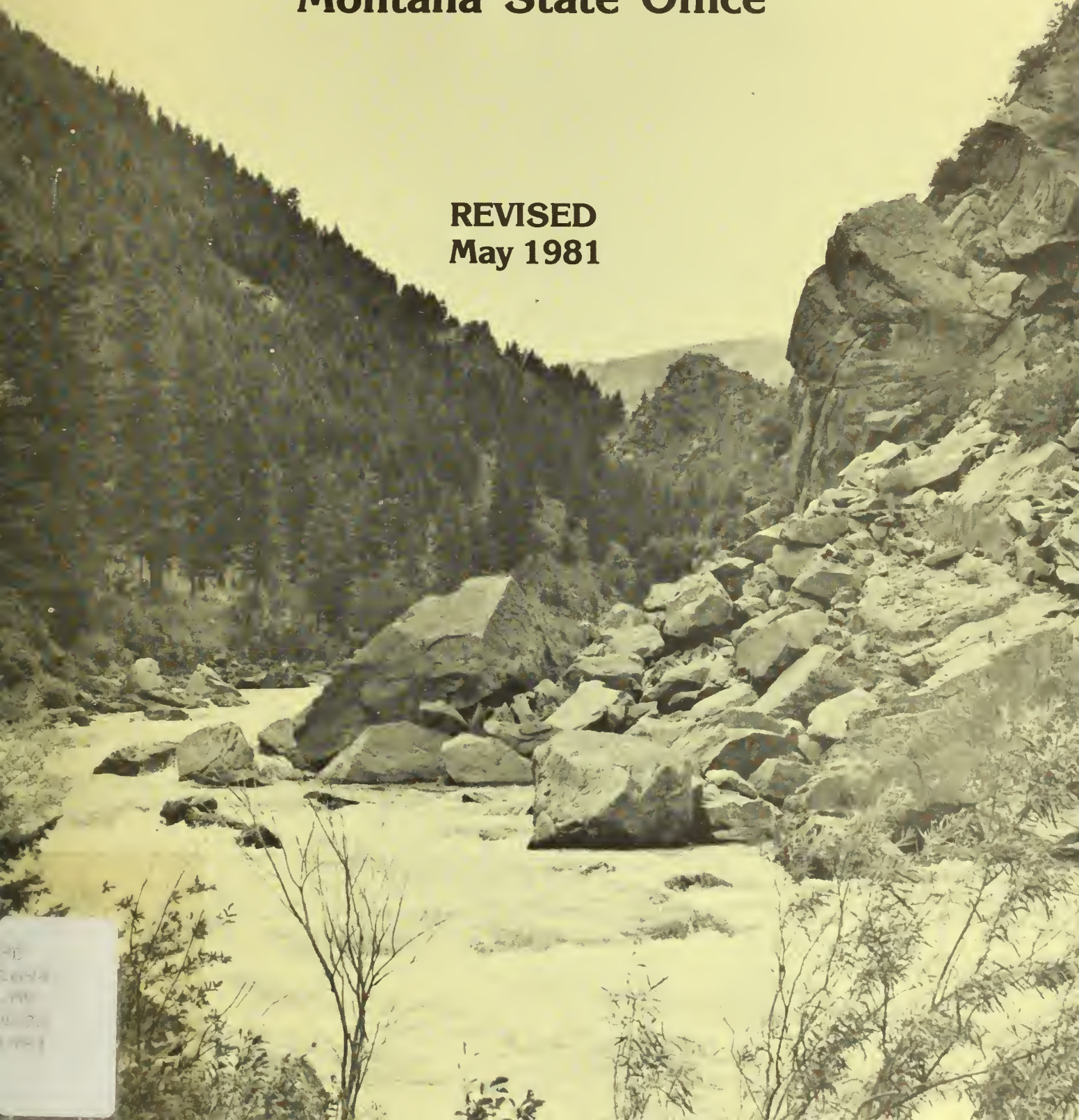
BLM LIBRARY
88018430

WATER USE INVENTORY

Montana State Office



REVISED
May 1981

ID 88018430

HD
1694
.M9
U373
1981

TABLE OF CONTENTS

BLM LIBRARY
SC-324A, BLDG. 50
DENVER FEDERAL CENTER
P. O. BOX 25047
DENVER, CO 80225-0047

		Page No.
I.	Purpose and Need	1
II.	Objective	2
III.	Definition of Terms	3
IV.	Overview of the Water Use Inventory	6
V.	Inventory Procedures	8
	Office File	8
	JDR Printouts	9
	JDR Project Files	10
	Sources not on JDR Printouts	11
	Master Title Records	11
	Infrared Aerial Photo Interpretation	13
	Bankhead-Jones Land Utilization	14
	Existing Water Filing Documents	15
	Courthouse Records and State Records	15
	Bureau Planning System	16
VI.	Measurements of Water Sources	17
VII.	Data Management	22
	Data Storage	22
	Quality Control	24
	Protection of Data	25

Bureau of Land Management
Library
Denver Service Center

BUREAU OF LAND MANAGEMENT LIBRARY
Denver, Colorado
88018430

APPENDICES

Appendix A - Legal Authorities for Use of Water on Public Lands

Appendix B - BLM Water Use Inventory Coding Form

Data Element Definitions and Instructions

Glossary #1 - Identifier Codes

Glossary #2 - Use Codes

Glossary #3 - Broad Source Type Codes

Glossary #4 - Specific Source Type Codes

Glossary #5 - Use Authority Codes

Glossary #6 - Priority Dates for Reserved Waters

Glossary #7 - Principal Meridian Codes

Glossary #8 - Survey Type Codes

Glossary #9 - Special Comment Codes

Glossary #10 - Land Status Codes

Appendix C - Office Work Sheets

Data Sources Worksheets

Procedure Checklist

JDR Matrix

PWR Transmittal Memos

PWR Form

Reservoir Surface Area and Capacity Calculations

Conversion Table for Dot Grids

Consumptive Use by Livestock Based on Carrying Capacity (chart and map)

Water Uses Field Inventory Form

Appendix D - Administrative Computer Output Format Sample

Water Rights Filing Format (reserved)

I. PURPOSE AND NEED

Water rights, always crucial in the arid West, have become a most significant issue facing the Bureau of Land Management in the 80s. With the addition of energy resource development to an arena already filled with agricultural, municipal, industrial and domestic interests, conflicts between competing water resource demands have never been greater.

Through Congress, the American people have given the Bureau a mandate for wise multiple-use management of our public lands and related resources. The water rights for the public lands must be clearly and legally defined, and beneficial uses for those waters thoroughly documented to secure those rights for the future.

In Montana, water right claims must be submitted to the State Department of Natural Resources and Conservation by January 1, 1982. To respond to this urgent need for documentation of water sources and uses, a statewide water use inventory was established. The inventory provides an accurate, up-to-date file of the Bureau's water resource uses. (See Appendix A for a brief summary of water rights in Montana and a complete citation of authority governing the Bureau's water use inventory.)

II. OBJECTIVE

The objective of the Water Use Inventory is to establish a comprehensive inventory of water sources and beneficial uses on the public lands administered by the Bureau in Montana, and North and South Dakota. The inventory is designed to contain all the information necessary for the adjudication of water rights. It will also provide an important information base for multiple-use management of the public lands and related resources.

Definition of Terms

ADJUDICATION. A judicial procedure to grant water rights.

ADJUDICATED WATER RIGHT. A water right granted and recognized by a judicial body.

APPROPRIATOR. One who takes possession and makes use of water.

BENEFICIAL USE OF WATER. The use of water for any purpose from which benefits are derived. What constitutes beneficial use is often defined by statute or by court decision. Montana law recognizes "a use of water for the benefit of the appropriator, other persons, or the public . . ." as a beneficial use.

BLM WATER USE INVENTORY CODING FORM. A form used for each water source to record information which will be entered into the computer. (Referred to in text as "coding form")

CONSUMPTIVE USE. The use of water resulting in a reduction of the water supply. Examples include irrigation, livestock watering, municipal use, and industrial use.

DATA FILE. All inventory data placed on the computer for an individual BLM state organization (i.e. Montana data file).

DATA RECORD. All data pertinent to an individual water source entered on the data file.

DIVERSION. The taking of water from a water source through a canal, pipe, or conduit.

DIVERSION, PLACE OF. The location where water is taken from a water source through a canal, pipe, or other conduit. In the case of a reservoir the location of the reservoir is the place of use and diversion.

JOB DOCUMENTATION REPORT (JDR). A Bureau of Land Management accounting system of all improvements built or developed by the Bureau. The Denver

Service Center has a record of all JDRs for the Bureau. In addition, each Bureau district office has JDR project folders.

JOB DOCUMENTATION REPORT NUMBER (JDR NUMBER). An identification number assigned to each improvement or development in the JDR system by the administering district office.

L.U. LANDS. Lands purchased by the Federal Government during the late 1930s under authority of the Bankhead-Jones Act.

NONCONSUMPTIVE USE. A use of water that does not reduce the supply, such as recreation, aesthetics, and certain wildlife uses.

PLACE OF USE. The location where the water is put to beneficial use.

PRIORITY DATE. A date assigned to every water right establishing a priority for water use at times of limited water supply. All water right holders with a senior (earlier) priority date have first use of water. All water right holders with a junior (later) priority date can use water only after all senior rights have been met. Priority dates are normally established as the date the water was first put to beneficial use. In some cases, however, the Federal Government may claim a priority date as the date a law or executive order reserved water for a particular use, regardless of whether or not the water was put to beneficial use at that time.

PUBLIC WATER RESERVE. Every smallest legal subdivision of the public land surveys remaining vacant, unreserved, and unappropriated which contained a spring or waterhole with a yield of greater than 0.125 gpm at any time between the dates of April 17, 1926, and October 21, 1976.

RECORD IDENTIFIER. A number originating from the MSO water rights staff that is assigned to every water source included in the water use inventory. Each source has its own unique number. It is entered on the BLM Water Use Inventory Coding Form and on USGS quad maps which illustrate all water sources identified in the inventory.

USE AUTHORITY. The authority which the BLM uses to claim a priority date. Appendix C glossary #4 lists the various use authority codes for the water use inventory.

WATER RIGHT. The right(s), acquired under Law, to use the water occuring in surface or groundwaters, for a specified beneficial purpose and in a given manner and usually within limits of a given period.

WATER SOURCE. A spring, well, stream, lake, etc., which is a source of water.

WITHDRAWAL. An action which removes described public land from operations of certain public land laws which are cited in the withdrawal order.

IV. OVERVIEW OF THE WATER USE INVENTORY

The Water Use Inventory is a collection of data about water sources and water uses on the Bureau administered lands in Montana, North and South Dakota. This data is acquired both from office records and field observations and measurements, discussed in Chapter V.

The data is stored in three separate storage systems which include:

1. Montana State Office Files.

The office files consist of folders, generally one for each planning unit which was inventoried. Within each folder, the following items are kept:

(a) office worksheets and supporting notes

(b) a procedural checklist

(c) existing water filing documents (copies)

(d) appraisal reports for LU lands and other supporting documents (copies)

(e) field inventory forms

These files provide the documentation of information which is stored in the computer. They are kept in the Montana State Office by the Water Use Inventory staff.

2. USGS 7-1/2 minute or 15 minute topographic quadrangles.

These maps show all the water sources inventoried with their respective record identifier number. They are kept in the Montana State Office by the Water Use Inventory staff.

3. Computer Storage and Retrieval

Information about each water source is placed on a BLM Water Use Inventory Coding Form. This information is stored in a computer for later retrieval in reports. The computer is the major storage system of information for the inventory. Appendix B, BLM Water Use Coding Form identifies exactly what information is stored in the computer.

V. INVENTORY PROCEDURES

The basic steps in conducting the inventory are as follows:

Identify and collect information about each water source on the public lands by examining various sources of information. To assure that this step is completed in a thorough, well documented manner, an office file is prepared (see inventory procedure #1).

Record all the information gathered from each source onto the BLM Water Use Inventory Coding Forms. The office file serves as a control to assure that each water source is recorded on a separate coding form and to document the information placed on the coding form. Information from the coding forms will be entered into the computer. Appendix B Data Element Definitions and Instructions provides the only step-by-step procedure for completing the coding forms. Appendix B must be fully understood prior to beginning the inventory.

Map each water source and enter the record identifier number of each source on USGS 7-1/2 or 15 minute quadrangle maps when available. Map symbols are found in Bureau Manual 9161.

The following discussion details the procedures involved in recording data from each information source. These procedures must be followed to assure that a standard approach is used and that all sources of information are examined.

1. Office File

Prepare an office file for each planning unit which is to be inventoried. The purposes of the office file are to assure that all sources of information are examined, to document the information which is entered on the coding forms, and to assure that all water sources are recorded on a separate coding form. The file will contain the following:

(a) Office Work Sheets (Appendix C, page 1). Each water source within the planning unit will be entered on the work sheets. Much of the basic information about the water source is recorded on these worksheets before being transferred to the BLM Water Use Inventory Coding Form.

(b) Data sources work sheets are completed to identify which information source was used to obtain a location, storage capacity and use (Appendix C, page 2). The work sheet will enable one to easily backtrack and verify information on a particular office record.

(c) All other paperwork used in transferring data from records to office work sheets or coding forms. When examining each information source, it is often necessary to record information on a plain sheet of paper and later transfer the information. These papers are valuable and must be stored permanently in the planning unit files. The worksheets and any other papers used to store or transfer information will be stamped "Official Office Worksheet."

(d) A procedural checklist (Appendix C, page 3) is attached to each file. As sources of information are examined or procedures completed the individual responsible must initial and date the checklist. The items found on the checklist are described in this section on procedures.

(e) Copies of existing water filing documents (see inventory procedure #8).

(f) Copies of appraisals for LU lands and other supporting documents (see inventory procedure #7).

(g) Field inventory forms (see Field Measurements).

2. JDR Printouts

A printout from the Denver Service Center of the Job Documentation Reports (JDRs) is the first source of information. The JDR system is an accounting system of all improvements built or developed by the BLM. Most of the wells

developed springs, reservoirs, detention dams, and catchments constructed by the BLM are found in these reports. These printouts contain codes indicating the type of project, the District, Planning Unit, and JDR number. The printouts do not contain the legal description of the location of the project. When using the printouts, reference to Appendix C, pages 4-10, "Job Documentation Report Matrix" will be needed for interpretation of the codes. From these printouts, the project number, ADP number, and project name are entered onto the worksheets.

3. JDR Project Files

The JDR project files located in the District Offices are used to enter onto the worksheet the legal subdivision in which the project is located, and in some cases, the size of the source and priority date. The JDR project files may also contain the following information which is entered on the coding form:

Date of construction
Initial capacity of reservoir to spillway
Yield of well or spring
Reason for construction - type of use
Number of points of use
Records of state water right or notice of appropriation
Name of stream on which the source is located and tributaries
Surface acres of reservoir at spillway elevation
Maximum Depth
Storage capacity of stock tanks
Amount of diversion from a well or spring
Legal description of source
Capacity of any pipelines or canals

4. Sources Not on JDR Printouts

Not all water sources have been recorded on the JDR printouts. Notable exceptions are:

(a) undeveloped springs
(b) unauthorized improvements made by private individuals
(c) some of the water sources located on LU lands at the time of purchase by the Government

In order to identify these water source, Procedures 5, 6, and 7 are followed.

In all cases, the Montana State Office will assign a JDR number when there is none on a developed water source (Item #6 on the BLM Water Use Inventory Coding Form).

5. Master Title Records.

These are official public documents which contain land status and official land use actions such as rights-of-way, withdrawals, easements, purchases, sales, etc. Copies of the Master Title Plats are available in the District Offices and at the Montana State Office, Branch of Records and Data Management. In addition, BLM projects are generally recorded on Master Title Plats. Some District Offices may also have a project atlas upon which projects are recorded.

Public Water Reserves (PWRs) that have been formally identified will appear on the Master Title Plats. Many PWRs, however, are not on the plats. These must be identified and formally noted on the Master Title Plats.

All PWRs must be included in the water use inventory.

The following description will assist in identifying which springs and waterholes are PWRs:

By Executive Order of April 17, 1926 (Public Water Reserve No. 107), every smallest legal subdivision of the public land surveys remaining vacant, unreserved, and unappropriated, which contained a spring or waterhole with a yield of greater than 0.125 gpm was withdrawn by terms of the order, without identification of the lands affected. Regulations governing public water reserves and the use of water found in such reserves are contained in 43 CFR 2311.

Subsequently, the Federal Land Policy and Management Act of October 21, 1976 (Public Law 94-579, 90 Stat. 2743), revoked Executive Order of April 17, 1926, thus limiting PWR No. 107 designations to qualifying sources of water in existence during the interval between April 17, 1926, and October 21, 1976.

Once a spring or waterhole is determined to be a PWR, the following procedure is used for formal identification:

Record the PWR on a PWR No. 107 Classification Determination form (Appendix C, page 13).

The entire form should be completed except the Serial I.D. number which will be completed by the Branch of Records and Data Management.

The PWRs forms are forwarded within the Montana State Office from the Division of Resources to the Division of Technical Services.

The Division of Technical Services then requests the Division of Management Services to note their records to indicate the presence of a PWR.

A copy of the determination forms complete with the Serial I.D. number is made for the water rights staff.

Transmittal memos and the PWR form are found in Appendix C, pages 11-13. This procedure has been adopted to meet the requirements of 43 CFR 2311.

Other withdrawals pertinent to the water use inventory which are on the Master Title Plats are livestock driveways and the Pryor Mountain Wild Horse Range. The Federal Government will claim a reserved water right on the water sources within these areas. The reserved right will have a priority date of the date the withdrawal was made or legislation passed granting authority for the withdrawal. Refer to Items 26, Use Authority, and 30, Priority Date on the Coding Form.

Exploratory wells purchased from oil or gas companies and converted into water wells also are reserved. Refer to Solicitor's Opinion #M-36914 for further information.

6. Infrared Aerial Photo Interpretation.

The use of infrared aerial photography provides a valuable means of identifying reservoirs and springs occupying public lands but not previously recorded or mapped by BLM. It also provides the user with the ability to estimate the surface area of the reservoirs through use of a dot grid system or a planimeter when there are no such records.

The legal location of water sources can also be obtained by using photos in conjunction with USGS quads (see Appendix C, pages 14-19 for information on using infrared aerial photography for surface area and reservoir capacity calculation). Legal locations are then checked against Master Title Plat to determine that the water source is on Bureau administered land. Aerial photos will be used when existing records are inadequate or nonexistent.

Reservoirs identified on aerial photos which appear to be nonfunctional, should be identified as such on the field inventory form (see Field Measurements for additional information).

7. Bankhead-Jones Land Utilization (LU Lands).

LU lands are lands that were purchased by the Federal Government during the late 1930s under the authority of the Bankhead-Jones Act. Water sources constructed when these lands were in private ownership are not always recorded in the JDR project file. Infrared aerial photography is used to identify water sources on the LU lands (see Infrared Aerial Photo Interpretation). After the sources are identified, the Master Title Plats are used to obtain the purchase contract number for that land. Using this number, the contract purchase folders are obtained from the Docket and Accounts Section, Branch of Records and Data Management in the Montana State Office. The folder contains appraisal information about the water source and sometimes the date of construction and date of homestead patent. This information is used to determine priority date.

When the date of construction is not available, the date of homestead patent will be used for the priority date. In cases where the land was not a homestead or no date of homestead patent is found and there is no date of construction, the date that the land was appraised or acquired by the Federal Government will be used as a priority date. In any case, a remark should be noted on the BLM Water Use Inventory Coding Form under Item 51 Remarks I indicating which priority date is being used.

Copies of maps and appraisal reports should be made and kept as evidence in the office file at the Montana State Office.

The Montana State Office will assign a JDR project file number on all developed water sources which have no such number. This assignment is made from blocks of JDR numbers reserved for that purpose by each District.

All water sources identified using aerial photos on LU lands will be field checked. (See Field Measurements for additional information.)

8. Existing Water Filing Documents.

The Bureau has on some of its sources filed for water rights or notified the state of appropriations of water. Supporting documents include:

(a) DNR Form 600, "Application for Beneficial Water Use Permit"
(b) DNR Form 602, "Notice of Completion of Water Development"
(c) DNR Form 605, "Declaration of Existing Water Right"
(d) BLM Montana Form MSO-F-65, "Notice of Appropriation of Water"
(e) There may also be some county forms granting water rights to the Bureau.

These forms provide legal evidence that the Bureau beneficially uses water from a given source and this evidence will be used in the adjudication process. The above forms are found in the District Office and District personnel can assist in locating these records.

The book and page number in which the filing is recorded in the county courthouse is recorded on the BLM Water Use Inventory Coding Form, Items 73 and 74. Copies of the above forms should be made and kept in the office file at the Montana State Office.

9. Courthouse Records and State Records.

County courthouses may have records of water filings made by the Bureau. These records are checked against the existing water filing documents in the District Offices to assure that all water sources filed on by the Bureau are

noted. Because of the volume of courthouse records, only a check under Bureau of Land Management, United States of America, and Department of Interior is required. A check under the miscellaneous sections will be completed only if time permits. The book number and page number in which the filing is found are recorded on the BLM Water Use Inventory Coding Form, Items 73 and 74.

The State Department of Natural Resources has furnished a printout of all water wells upon which the Bureau has filed a water right. Included in the printout are wells drilled in 1973 through 1979. All of these wells will be entered into the inventory. A check will be made to assure that all wells drilled for the Bureau since 1972 have a water right filing from the Department of Natural Resources. Any well discovered not having a water filing will be filed upon.

Water wells developed before 1973 which were filed in county courthouses are on microfiche in the DNR Water Right Bureau in Helena. A check will be made to assure that all wells previously filed upon are included in the inventory. These wells will be submitted for the general adjudication of water rights as the previous filing will no longer be valid.

10. Bureau Planning Systems

The Bureau Planning System contains water resource information for each planning unit. Step III and IV of the Unit Resource Analysis may contain specific water data about springs wells and reservoirs. In addition, the Management Framework Plans may provide information on future water needs.

VI. MEASUREMENTS OF WATER SOURCES

Field observations of water sources will be conducted when there is a question concerning the viability of a source, or where there is incomplete information about a source. All field work will be recorded on the Water Uses Field Inventory Form (see Appendix C, pages 22-24).

(a) All water sources identified by using the LU project folders will be checked to make sure that the development is still functional. Reservoirs identified on aerial photos which appear to be nonfunctional due to dam failure, siltation, or lack of stored water will also be field checked. If the structure is not functional, the appropriate District Office will be contacted to determine if they intend to abandon or repair the reservoir. If the reservoir is abandoned, it will be deleted from the inventory and no water right will be claimed. In all other cases, the structure will be kept in the inventory.

(b) All springs which have not been measured to determine yield will be field checked. The preferred method is to divert the entire flow into a container of known volume while recording the time it takes to fill the container. Then convert the measurements into gallons per minute (ex.: a one-gallon container is filled in 20 seconds equals 3 gallons per minute). Several different sized containers may be needed. In some cases, a pygmy meter may be needed to measure very large flows. Again, all of the flow must be diverted into a single channel.

(c) Wells which have no record of yield will only be field checked in special situations to verify location and condition. Bureau wells are primarily used for livestock consumption, or human consumption, with a secondary use being wildlife consumption and only a very small yield is required. Therefore, a yield of 5 gpm will be assumed where there is no record of yield. A note should be added in the remarks section of the coding form that the 5 gpm is an estimate.

A yield of 5 gpm is adequate for most consumptive uses. If a yield of greater than 5 pgm is desired, enter the desired amount.

(d) Instream Flow - In addition to recording the springs, wells, and reservoirs on the lands administered by the Bureau, instream flow needs will be identified and submitted to the state for reservation of necessary flows.

Instream flow needs are simply the streamflows necessary to maintain a particular nonconsumptive use. The most obvious are the instream flow needs for fish. Others include float boating, aesthetics, aquatic life, water quality, and channel integrity. The streamflow needs will vary depending upon the use and also vary with time for a given use.

The Bureau has developed instream flow guidelines (revised June 1979) which will be used for the inventory. These guidelines are based on the work of the U.S. Fish and Wildlife Service, Instream Flow Group in Fort Collins, Colorado. Publications from the Instream Flow Group and the Bureau Manual 7250 provide further guidance.

(e) Consumptive Use by Livestock - The entire initial capacity of reservoirs will be claimed for a water right. Procedures for Reservoir Surface Area Estimates are given in Appendix C, pages 14-19. Livestock consumption will be separated from all other uses.

Livestock consumption will always be computed using a standardized method explained below:

> Vegetative Rangeland Types in Montana, a MSU at Bozeman publication, illustrates livestock carrying capacity in acres per animal unit month (AUM) for various areas within the state.
>
> One mile is used as the average distance cattle will travel from a water source. This equals 2,010 acres.
>
> Fifteen gallons per day is used as the amount of water consumed by one head of cattle.

$$(2010 \text{ acres}) \frac{(1 \text{ AUM/year})}{(\text{ x acres })} \frac{(1 \text{ year})}{(12 \text{ AUM})} \frac{(365 \text{ days})}{(1 \text{ year})} \frac{(15 \text{ gal.})}{(1 \text{ day})} \frac{(1 \text{ acre ft})}{(325{,}851 \text{ gal})} = \frac{\text{acre ft}}{\text{year}}$$

The Montana State Office has developed a chart from the above calculations which shows consumptive use by livestock for each vegetative range type. Each water source must be identified as to the vegetative range type in which it is found and the appropriate livestock consumptive use value used (see Appendix C, pages 20-21 for consumptive use table and map.)

(f) Pothole Lakes - No attempt will be made to field measure each pothole. A curvilinear regression was developed to predict the capacity of each pothole lake. Pothole lakes ranging in size from one to thirty-three acres in surface area will have the capacity calculated using the formula:

$$a(e^{bx})=y$$

where; $a = .06$

$b = .12$

$e = 2.718$

x = surface area in acres

and y = estimated capacity in acre feet

Those pothole lakes with a surface area greater than thirty three acres will use the formula:

$$ax=y$$

where; $a = 1.8$

x = surface area in acres

and y = estimated capacity in acre feet.

(g) Domestic Sources - The consumptive use of a domestic water source will be computed using the following table:

Average Water Consumption

Use	Gallons Per Day	Consumer Unit
Camping		
Without flush toilets	5 gal/day	person
With flush toilets	25 gal/day	person
Day Use		
Without flush toilets	1 gal/day	person
With flush toilets	5 gal/day	person
Dwellings		
Single Family	1 ac. ft/year	family of 5

Source of information is Water Rights Bureau and USFS, Region 1, Sanitary Engineering and Public Health Handbook, chapter 32.

(h) Waterspreader Systems - Flood irrigation will be the consumptive use for waterspreaders. The formula:

$$ax=y$$

To calculate the consumptive use.

where: $a = 1.5$ feet annually

x = surface area in acres

and y = estimated consumptive use in acre feet annually.

For those systems where the water is stored in a reservoir and released at various times we will use the capacity of the reservoir that is designed for use in the waterspreader plus any additional amount acquired through runoff. It is expected that the consumptive use of most waterspreaders will be calculated using the formula. The 1.5 feet per acre per year figure is what the Montana State Water Right Bureau recommends as the consumptive use value in the calculation of water used in the waterspreader systems.

VI. DATA MANAGEMENT

Data Storage

Once information has been obtained either from records or field measurements, the task of data management begins. Basically, there are three separate storage systems for the data.

1. Office Files - The office files consist of folders, generally one for each planning unit which was inventoried. Within each folder, the following items are kept:

   (a) office worksheets and supporting notes
   (b) data sources worksheets
   (c) a procedural checklist
   (d) existing water filing documents (copies)
   (e) appraisal reports for LU lands and other supporting documents (copies)
   (f) field inventory forms

These files are kept in the Montana State Office by the Water Use Inventory staff.

2. USGS 7-1/2 or 15 Minute Quad Maps - These maps will show all the water sources inventoried with their respective record identifier number. They are kept on the fourth floor of the Montana State Office by the Water Use Inventory staff.

3. Automated Data Base - The Montana State Office has obtained computer storage space. The Computer will provide the Montana State Office with the capabilities of a report generating program. The report generating program should provide complete flexibility for user design of output format and data manipulation.

As the data on a specific source is compiled from field data, it is entered on the Montana State Office Water Use Inventory Coding Form. All data is entered according to format and procedure described in the section covering Data Element Definitions and Instructions in this handbook. The information from the forms is keypunch entered into the computer. Additional information on data entry procedures is available from the Division of Technical Services, MSO.

Following data entry, an initial "data-dump" of all of the information in each record is obtained for editing. This "dump" is initially reviewed for obvious coding and keypunch errors such as missing data elements, misspelled words, improper spacing, and format errors. Each record is then compared to the input form to ensure that the information is correct. Further cross-checking against office sheets and other sources is reserved for those records with coding errors detected during editing.

Since initial data file storage is on the USDI Honeywell computer at the Denver Service Center, minor editing changes can be accomplished using the Division of Technical Service's access to the file. More extensive editing is accomplished through use of the MSO Water Use Inventory Coding Form. The corrected information is entered in its proper field, the record identifier is entered in its field, and the appropriate ADP action code [Card 1-"A", Card 2-"B", etc. (see Data Element Definitions)] is entered in its field.

If editing reveals information was left out of a record during coding which is now available, i.e. the capacity of a reservoir which had to be field-checked, the information is entered on the coding form along with the record identifier and the appropriate ADP action code (in this case Card 1-"A", Card 2-"B", etc., since this is additional information for an established record).

When all editing changes have been input and confirmed, the file is ready for data retrieval and report generation. The user can use any selection criteria he wishes; for example the program can be instructed to print out only those sources in a specified township and range with greater than a specified capacity.

The program can also be directed to arrange data in alphabetic or numeric order, to subtotal information according to the selection criteria (i.e. subtotal numbers of livestock within each hydrologic unit), to complete mathematical computations with the defined elements (i.e. Compute the total number of acre-feet of water produced each year by a well with a flow of XXX cubic feet/second, using the amount entered in the total use field on the coding form), or to provide an output report in whatever format the user requires. The output format illustrated in Appendix D is a general format designed by MSO incorporating all information contained in each data record. Other formats will be developed to accommodate specific needs such as filing of water right claims.

Quality Control

A final verification of reservoir locations will take place prior to December, 1981. Reservoir locations obtained from office files will be checked against map locations prepared from aerial photos. When the office file locations and map locations do not match, the true location will be determined by a field check.

Data will be entered onto the coding forms only by personnel on the Water Use Inventory staff. Every coding form will then be checked by one other person on the staff. Prior to being sent for computer entry, every coding form will be duplicated and saved.

To assure that the data on the coding form is properly entered into the computer, a machine verification and a visual verification will take place.

The machine verification consists of data being entered by two separate operators at different times. If the entries are not identical, the computer will flag the discrepancy and the appropriate changes will be made. Visual verification consists of the computer printing out all the stored data which is then compared to the coding forms. This system of double checking each entry will assure that information on the coding form is accurately stored in the computer.

Protection of Data

Office files and USGS maps will not be removed from the Montana State Office without written permission from the Chief, Division of Resources. Anyone wishing to review the files may do so under the supervision of a water rights staff member. Copies of materials in the files will be made for individuals by the Montana State Office on a limited basis.

BLM coding forms will be duplicated prior to being sent for computer entry. Both the original and the copy will be kept by the Montana State Office. The copies will be available for review along with computer output information.

Appendix A

APPENDIX A

Water Rights in Montana

A water right is a decree with a priority date allowing for the beneficial use of a specific quantity of water from a specific source for a specific purpose to be used at a specific place during a certain period of time.

In Montana, the Department of Natural Resources, Water Rights Bureau, has issued water right permits since 1973. Anyone who began making beneficial use of water after 1972 has to file with the Water Rights Bureau to receive a water right.

Prior to 1973, there was no uniform statewide system for recording and issuing water rights. To remedy this situation, Senate Bill 76 was passed during the 1979 legislature. This Bill provides for four water divisions within the state, each with a presiding judge responsible for the adjudication of pre-1973 claims of water. The Federal Government was enjoined and required to make its submissions to the court. Montana law defines several nonconsumptive uses as beneficial and in this regard the beneficial uses of water which are recognized by the Federal Government are also recognized as beneficial by Montana.

The mandate for initiation of a water use inventory is found in a variety of sources, the most notable of which are the following:

1. Presidential water policy statement of June 6, 1978, instructing Federal agencies to quantify their claims to water.

2. Secretarial memorandum of June 23, 1979, declaring it to be Departmental policy that the land managing agencies shall produce a quantification of their claims to water.

3. Departmental Solicitor's Opinion of June 25, 1979, incorporating recommendations and instructions to land management agencies for identification, quantification, and appropriation of reserved and nonreserved rights by appropriation under state administrative procedure.

4. Director's water rights policy memorandum, IM 79-641, of August 14, 1979. The Director stated that the Bureau must quantify and record reserved waters through notification to the states, and must obtain nonreserved rights by appropriation under state administrative procedure.

5. Montana State Law, Senate Bill 76, of April 25, 1979, established four water divisions for adjudication of water rights, and set July 1, 1983, as the final date for submission of claims. The State Department of Natural Resources and Conservation moved the date to January 1, 1982, which action was upheld by the State Supreme Court.

In addition, the Taylor Grazing Act of June 28, 1934 (43 U.S.C.), as amended, and the Federal Land Policy and Management Act of October 18, 1972, provide the authority for the Bureau to pursue a water use inventory.

STATUTORY AUTHORITY

Taylor Grazing Act, Act of June 28, 1934, as amended (43 U.S.C. 315, as amended):

In order to promote the highest use of the public lands . . ., the Secretary of the Interior is authorized, in his discretion by order to establish grazing districts . . . of vacant, unappropriated, and unreserved lands from any part of the public domain of the Unites States (exclusive of Alaska) . . . and which in his opinion are chiefly valuable for grazing and raising forage crops . . . [Also authorizes inclusion of reserved lands with approval of department having jurisdiction.]

Sec. 315(a). The Secretary of the Interior shall make provision for the protection, administration, regulation, and improvement of such grazing districts as may be created under the authority of section 315 of this title, and he shall make such rules and regulations and establish such service, enter into such cooperative agreements, and do any and all things necessary to accomplish the purposes of th is subchapter and to insure the objects of such grazing districts, namely, to regulate their occupancy and use, to preserve the land and its resources from destruction or unnecessary injury, to provide for the orderly use, improvement, and development of the range; and the Secretary of the Interior is authorized to continue the study of erosion and flood control and to perform such work as may be necessary amply to protect and rehabilitate the areas subject to the provisions of this subchapter . . . (emphasis added).

Sec. 315(b). . . . nothing in this subchapter shall be construed or administered in any way to diminish or impair any right to the possession and use of water for mining, agriculture, manufacturing, or other purposes which has heretofore vested or accrued under existing law validity affecting the public lands or which may be hereafter initiated or acquired and maintained in accordance with such law . . .

. . .

Sec. 315(h). The Secretary of the Interior shall provide, by suitable rules and regulations, for cooperation with local associations of stockmen, state land officials, and official state agencies engaged in conservation or propagation of wildlife interested in the use of the grazing districts . . .

Act of August 28, 1937 (O & C Act) (50 Stat. 874; U.S.C. 1181):

Sec. 1181(a). . . . such portions of the revested Oregon and California Railroad and reconveyed Coos Bay Wagon Road grant lands as are or may hereafter come under the jurisdiction of the Department of the Interior, which have heretofore or may hereafter be classified as timberlands, and power-site lands valuable for timber, shall be managed, except [for those lands classified as more suitable for agricultural use], for permanent forest production . . ., protecting watersheds, regulating stream flow, . . . and providing recreational facilities . . . (emphasis added).

Sec. 1181(b). The Secretary of the Interior is authorized, in his discretion, to make cooperative agreements with other federal or state forest administrative agencies or with private forest owners or operators for the coordinated administration, . . . when by such agreements he may be aided in accomplishing the purposes mentioned . . .

Sec. 1181(c). [Authorizes classification of lands for agricultural use if "more suitable for agricultural use than for afforestation, reforestation, stream flow protection, recreation, or other public purposes." (Emphasis added.) [This section aids in the interpretation of Section 1181(a).]

. . .

Sec. 1181(e). The Secretary of the Interior is authorized to perform any and all acts and to make such rules and regulations as may be necessary and proper for the purpose of carrying the provisions of sections 1181(a) to 1181(f) of th is title into full force and effect . . . [Also authorizes the formulation of regulations for the protection of the O & C timber lands against fire. Fire protection may require adequate stream flows.]

Act of March 29, 1944 (58 Stat. 132; 16 U.S.C. 583):

Sec. 583. . . . in order to provide for a continuous and ample supply of forest products; and in order to secure the benefits of forests in maintenance of water supply, regulation of stream flow, prevention of soil erosion, amelioration of climate, and preservation of wildlife, the Secretary of Agriculture and the Secretary of the Interior are severally authorized to establish by formal declaration, when in their respective judgments such action would be in the public interest, cooperative sustained-yield units which shall consist of federally owned or administered forest land under the jurisdiction of the Secretary establishing the unit and, in addition thereto, land which reasonably may be expected to be made the subject of one or more of the cooperative agreements with private landowners authorized by section 583(a) of this title. (Emphasis added.)

[Section 583(c) authorizes cooperative agreements among various agencies of the Federal Government.]

Wilderness Act, Act of September 3, 1964 (78 Stat. 891), as amended, (16 U.S.C. 1131) as referenced by Section 603 of the Federal Land Policy and Management Act of 1976, cited below:

Act of September 19, 1964 (Classification and Multiple Use Act) (P.L. 88-607; 78 Stat. 986):

Sec. 1. . . . consistent with and supplemental to the Taylor Grazing Act . . . and pending the implementation of recommendations to be made by the Public Land Law Review Commission --

(a) The Secretary of the Interior shall develop and promulgate regulations containing criteria by which he will determine which of the public lands . . . shall be (a) disposed of . . . or (b) retained, at least during this period, in federal ownership and management for (1) domestic livestock grazing, (2) fish and wildlife development and utilization, (3) industrial development, (4) mineral production, (5) occupancy, (6) outdoor recreation, (7) timber production, (8) watershed protection, (9) wilderness preservation, or (10) preservation of public values that would be lost if the land passed from federal ownership . . . (emphasis added).

(b) . . . In making his determinations the Secretary shall give due consideration to all pertinent factors, including, but not limited to, ecology, priorities of use, and the relative values of the various resources in particular areas.

Sec. 3. The Secretary of the Interior shall develop and administer for multiple use and sustained yield of the several products and services obtainable there from those public lands that are determined to be suitable for interim management in accordance with regulations promulgated pursuant to this Act.

Rare and Endangered Species Act of 1966 (80 Stat. 926 - 930) as amended by the Engangered Species Act of 1969 and substantially replaced by the Endangered Species Act of 1973 (now 16 U.S.C. 1531 - 1543):

Sec. 1531(c). Congressional findings and declarations of purpose and policy . . . It is further declared to be the policy of Congress that all federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purpose of this chapter. (Emphasis added.)

Sec. 1533(d). Protective regulations: Whenever any species is listed as a threatened species pursuant to subsection 1533(c), the Secretary shall issue such regulations as he deems necessary and advisable to provide for the conservation of such species. . .

Sec. 1536. Interagency cooperation. The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purpose of this chapter. All other federal departments and agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species listed pursuant to Section 1533 of this title and by taking such action necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered species and threatened species or result in the destruction or modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with the affected states, to be critical.

Wild and Scenic Rivers Act, Act of October 2, 1968 (82 Stat. 906), as amended, (16 U.S.C. 1271):

Sec. 1271. It is hereby declared to be the policy of the United States that certain selected rivers of the nation which, with their immediate environments, possess outstanding remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition . . . (emphasis added).

A. Utilize a systematic, interdisciplinary approach which will ensure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

B. Identify and develop methods and procedures . . . which will ensure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking . . . (emphasis added).

G. Initiate and utilize ecological information in the planning and development of resource-oriented projects . . .

Act of October 18, 1974, (Sikes Act) (P.L. 93-452; 88 Stat. 1360, 43 U.S.C. 670):

Subchapter II - Conservation Programs on Public Lands

Sec. 670(g). (a) The Secretary of the Interior and the Secretary of Agriculture shall each, in cooperation with the state agencies and in accordance with comprehensive plans developed pursuant to Section 670(h) of this title, plan, develop, maintain, and coordinate programs for the conservation and rehabilitation of wildlife, fish and game. Such conservation and rehabilitation programs shall include, but not be limited to, specific habitat improvement projects and related activities and adequate protection for species considered threatened or endangered (emphasis added).

(b) The Secretary of the Interior shall implement the conservation and rehabilitation programs required under subsection (a) of this section on public lands under his jurisdiction . . .

Sec. 670(h). (a)(1) The Secretary of the Interior shall develop, in consultation with the state agencies, a comprehensive plan for conservation and rehabilitation programs to be implemented on public land under his jurisdiction . . . (emphasis added).

(2) . . . Each such plan shall be developed after the Secretary of the Interior makes . . . in consultation with the state agencies, necessary studies and surveys of the land concerned to determine where conservation and rehabilitation programs are most needed.

. . .

(c)(1) Each state agency may enter into a cooperative agreement with -

A. The Secretary of the Interior with respect to those conservation and rehabilitation programs to be implemented under this subchapter within the state on public land which is under his jurisdiction;

. . .

Conservation and rehabilitation programs developed and implemented pursuant to this subchapter shall be deemed as supplemental to wildlife, fish, and game-related programs conducted by the Secretary of the Interior and the Secretary of Agriculture pursuant to other provisions of law. . .

[See paragraph (c)(3) of this section for the requirements for cooperative agreements under this authority.]

Federal Land Policy and Management Act of 1976, Act of October 21, 1976 (P.L. 94-579; 90 Stat. 2743):

Sec. 102(a) The Congress declares that it is the policy of the United States that -

. . .

(2) the national interest will be best realized if the public lands and their resources are periodically and systematically inventoried and their present and future use is projected through a land use planning process coordinated with other federal and state planning efforts;

. . .

(8) the public lands be managed in a manner <u>that will protect the quality of</u> scientific, <u>scenic</u>, historical, <u>ecological</u>, <u>environmental</u>, and archaeological <u>values</u>; that, where appropriate, <u>will preserve and protect certain public lands in their natural condition</u>; that <u>will provide food and habitat for fish and wildlife</u> and domestic animals; and that <u>will provide for outdoor recreation</u> and human occupancy and use; (emphasis added).

. . .

(b) The policies of this Act . . . shall be construed as supplemental to and not in derogation of the purposes for which public lands are administered under other provisions of law.

. . .

Sec. 103(e). The term "public lands" means any land and interest in land owned by the United States within the several states and administered by the Secretary of the Interior through the Bureau of Land Management . . .

Sec. 201(c). The Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values (including, but not limited to, outdoor recreation and scenic values), giving priority to areas of critical environmental concern . . . (emphasis added).

. . .

Sec. 204(a). On and after the effective date of this Act the Secretary is authorized to make, modify, extend, or revoke withdrawals but only in accordance with the provisions and limitations of this section . . . [Section 204 repeals all preexisting executive withdrawal authority and enacts a comprehensive procedure for establishing future withdrawals by Act of Congress. Provision is made for emergency withdrawals and withdrawals in aid of legislation. Under authority of paragraph (1)(1), all withdrawals from the public domain in the states of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming shall be reviewed within 15 years.]

. . .

Section 302(a). The Secretary shall manage the public lands under principles of multiple use and sustained yield, in accordance with the land use plans developed by him . . .

. . .

Sec. 307(b). . . . the Secretary may enter into contracts and cooperative agreements involving the management, protection, development, and sale of public lands. . . .

Sec. 310. The Secretary, with respect to the public lands, shall promulgate rules and regulations to carry out the purposes of this Act and of other laws applicable to the public lands . . .

. . .

Sec. 603(a). Within fifteen years after the date of approval of this Act, the Secretary shall review those roadless areas of five thousand acres or more and roadless islands of the public lands, identified during the inventory required by section 201(a) of this Act as having wilderness characteristics described in the Wilderness Act of September 3, 1964 (78 Stat. 890; 16 U.S.C. 1131 et seq.) and shall from time to time report to the President his recommendation as to the suitability or nonsuitability of each such area or island for preservation as wilderness . . .

(b) . . . A recommendation of the President for designation as wilderness shall become effective only if so provided by an Act of Congress.

(c) During the period of review of such areas and until Congress has determined otherwise, the Secretary shall continue to manage such lands according to his authority under this Act and other applicable law in a manner so as not to impair the suitability of such areas for preservation as wilderness . . . Provided, that, in managing the public lands the Secretary shall by regulation or otherwise take any action required to prevent unnecessary or undue degradation of the lands and their resources or to afford environmental protection. . . . Once an area has been designated for reservation as wilderness, the provisions of the Wilderness Act which apply to national forest wilderness areas shall apply with respect to the administration and use of such designated area . . . (emphasis added).

Fish and Wildlife Coordination Act, Act of March 10, 1934, as amended, (43 U.S.C. 661-666c):

Sec. 661. [This authority applies only to lands included within water resource construction and improvement projects as defined by the Act. Generally speaking, the Fish and Wildlife Service is the implementing agency.]

. . . the Secretary of the Interior is authorized (1) to provide assistance to, and cooperate with, federal, state, and public or private agencies and organizations in the development, protection, rearing, and stocking of all species of wildlife, resources thereof, and their habitat, in controlling losses of the same from disease or other causes, in minimizing damages from over abundant species, . . . and in carrying out other measures necessary to effect the purposes of [16 U.S.C. 661 to 666]; (2) to make surveys and investigations of the wildlife of the public domain, including lands and waters or interests therein acquired or controlled by any agency of the United States; . . .

Sec. 664. Such areas as are made available to the Secretary of the Interior for the purposes of Sections 661 to 666c of this title . . . shall be administered by him directly or in accordance with cooperative agreements entered into pursuant to the provisions of Section 661 of this title and in accordance with such rules and regulations for the conservation, maintenance, and management of wildlife, resources thereof, and its habitat thereon, as may be adapted by the Secretary in accordance with general plans approved jointly by the Secretary of the Interior and the head of the department or agency exercising primary administration of such areas . . .

. . .

Sec. 666(b). The terms "wildlife" and "wildlife resources" as used in sections 661 to 666(c) of this title include birds, fishes, mammals, and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent.

. . .

Watershed Protection and Flood Prevention Act, Act of August 4, 1954 (68 Stat. 666), as amended, (16 U.S.C. 1001):

Sec. 1006. The Secretary [of Agriculture] is authorized in cooperation with other federal and with state and local agencies to make investigations and surveys of the watersheds of rivers and other waterways as a basis for the development of coordinated programs. In areas where the programs of the Secretary of Agriculture may affect public or other lands under the jurisdiction of the Secretary of the Interior, the Secretary of the Interior is authorized to cooperate with the Secretary of Agriculture in the planning and development of works or programs for such lands.

[This Act is the empowering statute for the Soil and Water Conservation Service of the Department of Agriculture. Some wildlife habitat maintenance programs might possibly benefit from jointly initiated watershed protection efforts.]

Water Resources Planning Act, Act of July 22, 1965 (79 State. 244; 42 U.S.C. 1962 et seq.):

Sec. 1962(b)-4. (d) Upon request of the chairman of any river basis commission, or any member or employee of such commission designated by the chairman thereof for the purpose, the head of any federal department or agency is authorized (1) to furnish to such commission such information as may be necessary for carrying out its functions and as may be available to or procurable by such department or agency . . . (emphasis added).

Water Bank Act, Act of December 19, 1970 (84 Stat. 1468; 43 U.S.C. 1301 et seq.):

Sec. 1301. The Congress finds that it is in the public interest to preserve, restore, and improve the wetlands of the nation, and thereby to conserve surface waters, to preserve and improve habitat for migratory waterfowl and other wildlife resources, to reduce runoff, soil and wind erosion, and contribute to flood control, to contribute to improved water quality and reduce stream sedimentation, to contribute to improved subsurface moisture, . . . to enhance the natural beauty of the landscape, and to promote comprehensive and total water management planning. The Secretary of Agriculture . . . is authorized and directed to formulate and carry out a continuous program to prevent the serious loss of wetlands, and to preserve, restore, and improve such lands . . .

[The basic scheme of this statute is the creation of a wetlands conservation bank through payments to private operators and owners working in cooperation with their local Soil and Water Conservation Districts. Claims by the federal land management agencies for instream flows may be required in order to properly supply and maintain certain wetlands included in the national water bank program.]

. . .

Sec. 1309. The Secretary [of Agriculture] shall consult with the Secretary of the Interior and take appropriate measures to ensure that the program carried out pursuant to this chapter is in harmony with wetlands programs administered by the Secretary of the Interior. . .

Coastal Zone Management Act of 1972, Act of October 27, 1972 (86 Stat. 1280; 16 U.S.C. 1451-1464):

Sec. 1452. The Congress finds and declares that it is the national policy (a) to preserve, protect, develop, and where possible, to restore or enhance, the resources of the nation's coastal zone for this and succeeding generations . . . (c) for all federal agencies engaged in programs affecting the coastal zone to cooperate and participate with state and local governments and regional agencies in effectuating the purposes of this chapter, and (d) to encourage the participation of the public, of federal, state, and local governments and of regional agencies in the development of coastal zone management programs . . . (emphasis added).

. . .

Sec. 1456(b). The Secretary [of Commerce] shall not approve the management program submitted by a state pursuant to section 1455 of this title unless the views of federal agencies principally affected by such program have been adequately considered. . .

(c) (1) Each federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs.

(2) Any federal agency which shall undertake any development project in the coastal zone of a state shall insure that the project is, to the maximum extent practicable, consistent with approved state management programs. (Emphasis added.)

Safe Drinking Water Act, Act of December 16, 1974 (88 Stat. 1660; 42 U.S.C. 300f et seq.)

[This statute directs the Administrator of the Environmental Protection Agency to promulgate regulations for the protection of drinking water supplies. The states' government agencies are to be the primary enforcement authorities. The federal land managing agencies are subject to the regulations to the extent that they apply to watersheds and underground aquifers needed or used for drinking water supply. Campground and recreational site water supply systems are also subject to these regulations.]

Federal Water Pollution Control Act Amendments of 1972, Act of October 18, 1972 (P.L. 92-500; 86 Stat. 816) as amended by the Clean Water Act of 1977 (P.L. 95-217; 91 Stat. 1566), see generally 33 U.S.C., Chapter 23:

[Section 208 directs that the Administrator of the Environmental Protection Agency shall promulgate comprehensive regulations intended to control water pollution sources, including nonpoint sources. Under the regulations which have been promulgated, the use of permits is required for any continuing pollution sources. The federal land management agencies are instructed to implement the best possible management practices designed to prevent degradation of streams on the lands under their jurisdiction.]

[Section 404 authorizes the Army Corps of Engineers to issue permits for activities which will result in earth disturbances contributing to stream sedimentation or which will result in decreased stream flows because of water impoundment.]

Appendix B

BLM WATER USE INVENTORY CODING FORM

NAME _____

ST 1	CNTY 2	DIS 3	RA 4	PU 5	JDR # 6	NATIONAL WATERSHED NUMBER 7	8	9	STATE WATER DIVISION OR BASIN NUMBER 10	USES 11-14 1	2	3	4	NAME OF SOURCE OR DEVELOPMENT 15	LAST UPDATE 16 Y Y	M M	D D	RECORD IDENTIF 17	ACTION

DEVELOPMENT: SOURCE TYPE 18	SP 20	DIV RATE 21	MONTHS USED 22 D	N	D	J	F	M	A	M	J	J	A	S	DAYS USED 23	SEASON OF DIVERSION 24	USE: TYPE	AUTH	CFS 27	AF 28	YEAR 29	PRIORITY DATE 30 Y Y Y Y	M M	D D	APPL DATE 31 Y Y Y Y	M M	D D	TYPE 32	ADJUD. DATE 33 Y Y Y Y	M M	D D	RECORD ID.	ACTION

PLACE OF USE: MER 34	TWNSHP 35	RANGE 36	SECT 37	SURVEY: TYPE	NOTE	NUMBER 40	SUBDIV 41	PLACE OF DIVERSION: MER 42	TWNSHP 43	RANGE 44	SECT 45	SURVEY: TYPE	NOTE	NUMBER 48	SUBDIV. 49	# PTS 50	REMARKS 1 51	RECORD ID.	ACTION

STORAGE: CAPACITY AF 52	SURFACE ACRES 53	DAM HT. 54	TYPE	STORAGE TANK GALLONS 56	CONVEYANCE CAPACITY: CFS 57	TYPE	IRRIGATION ACRES 59	SPEC COMM 60	STREAM NAME 61	REMARKS 2 62	RECORD ID.	ACTION

PLACE OF INSTREAM USE: STREAM MILE START 63	END 64	65 AMOUNT OF INSTREAM FLOW OR SCHEDULE OF FLOWS, CFS 65: OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	# OF LIVESTK 66	FIRST USE AC. FT. 67	SECOND USE AC. FT. 68	THIRD USE AC. FT. 69	LAND STATUS 70	RECORD ID	ACTION

NAME OF RECORDED APPROPRIATOR 71	NUMBER OF DECREE OR FILING 72	BOOK NO. 73	PAGE NO. 74	TYPE 75	REMARKS 3 76	RECORD ID.	ACTION

L or R	PRIMARY TRIBUTARY 77	L or R	SECONDARY TRIBUTARY 78	L or R	TERTIARY TRIBUTARY 79	RECORD ID.	ACTION

5/8.

DATA ELEMENT DEFINITIONS AND INSTRUCTIONS

Introduction

Prior to completing the BLM Water Use Inventory Coding Forms, one must become familiar with the data element definitions. Each data element is defined and where appropriate additional instructions are added for clarification.

Maps are available in the Montana State Office from the water rights staff for Items 2, 3, 4, 5, 7, 8, 9, 10, 66 on the coding form.

The name of the person completing the form and the date should be placed on each coding form. Each completed form must be checked by another person prior to being entered into the computer.

CARD #1

Columns	Item #	Name	Definition
1-2	1*	State	The state in which the source or development is located. Identify the state by the standard two digit alpha code. DED 0690. (See Glossary #1 for codes.)
3-5	2*	County	The county in which the source or development is located. Enter the three digit numerical code. DED 0546. (See Glossary #1 for codes.)
6-7	3*	BLM District	The administrative district in which the source or development is located. Enter the standard two digit numerical code. DED 0543. (See Glossary #1 for codes.)
8-9	4*	BLM Resource Area	The BLM administrative unit within a district. Enter the two digit numerical code. DED 0418. (See Glossary #1 for codes.)
10-11	5*	BLM Planning Unit	A geographic unit within a district used for assembling and analyzing data for planning. Enter the two digit numerical code. DED 1075. (See Glossary #1 for codes.)
12-17	6	JDR Number	The BLM Job Documentation Report Number. Enter the last digit in the right hand space; leave unused spaces blank. If there are no BLM records on a project, a JDR number and a name will be assigned. The State Office has blocks of JDR numbers for each District. DED 5464.
18-25	7*	National Watershed Number	This is the National watershed eight digit numerical code established by the US Water Resources Council showing region, sub-region, accounting unit, and cataloging unit. The code appears on the Hydrologic Unit map published by the US Geological Survey. Enter the code number as follows: DED 5304 (map available from MSO water rights staff:) Spaces 18-19 WRC Region Spaces 20-21 WRC Sub-region Spaces 22-23 WRC Accounting Unit Spaces 24-25 WRC Cataloging Unit

CARD #1

Columns	Item #	Name	Definition
26-27	8*	BLM Watershed Code	The BLM Watershed Planning code. Enter the two digit numerical code. DED 5304. (Map available at MSO from the water rights staff.)
28-29	9*	BLM Sub-Watershed Code	The BLM Sub-Watershed code for use in districts which have adopted BLM sub-watershed planning numbers; leave blank where no sub-watershed number has been designated. DED 5304. (Map available at MSO from the water rights staff.)
30-42	10*	State Water Division or Basin Number	Enter a two digit alpha code for the state water division. Enter the letter with the last digit in the right hand space; leave unused spaces blank. (Map available at MSO from the water rights staff.) YE Yellowstone UM Upper Missouri LM Lower Missouri CC Clarks Fork of the Columbia
43	11	First Use	The first use served by the source. Enter the one digit national water use alpha code. See Glossary #2 for codes.
44	12	Second Use	The second use served by the source. Enter the appropriate code from Glossary #2.
45	13	Third Use	The third use served by the source. Enter as in Item #11. If none, leave blank.
46	14	Fourth Use	The fourth use served by the source. Enter as in Item #11. If none, leave blank.
47-68	15*	Name of Source or Development	The name by which the source or project is identified on BLM records. Include the generic term such as spring, pit, reservoir, well, etc. If the number of spaces is insufficient, use initials or other abbreviations as needed. In cases where the source is natural with no project development, only the generic name will be entered unless a common name already exists. DED 4061.

CARD #1

Columns	Item #	Name	Definition
74	16	Last Update	The year, month, and day on which the file is being updated. Enter in the YYMMDD format. DED 2306. Use the standard two digit numerical codes for month and day. Example: 790521 = May 21, 1979.
75-79	17*	Record Identifier	The unique number assigned by the state office to identify a particular record. This item will be entered in spaces 75-79 on each card. Enter the number with the last digit in the right hand space; leave unused spaces blank.
80	18*	ADP Action Code	A code which indicates the ADP action regarding the information on the card. This item will be entered in space 80 on every card. 1 Card 1 - New info 2 Card 2 - New info 3 Card 3 - New info 4 Card 4 - New info 5 Card 5 - New info 6 Card 6 - New info 7 Card 7 - New info A Card 1 - Change or add info B Card 2 - Change or add info C Card 3 - Change or add info D Card 4 - Change or add info E Card 5 - Change or add info F Card 6 - Change or add info G Card 7 - Change or add info

* Data necessary for initial entry

CARD #2

Columns	Item #	Name	Definition
1	19	Broad Source Development Type	The general source development type. Enter the one digit national alpha code. See Glossary #3 for codes.
2-3	20	Specific Source Development Type	Codes assigned by the state office to further define the source type. See Glossary #4 for codes.
4-8	21	Diversion Rate	The rate of division if applicable in cubic feet per second to the nearest 1/100 cfs. Only used when water is physically diverted from a well, stream, or spring for use elsewhere. Enter the number, XXX.XX.
9-20	22	Months Used	The months when the source or development is in use. Enter 1's in the month columns when the use occurs. Leave other months blank.
21-23	23	Days Used	The number of days per year the source or development is actually in use. Enter the number with the last digit in the right hand space; leave unused spaces blank.
24-28	24	Season of Diversion	The season when the actual diversion takes place. Enter the two digit code for the months when the diversion begins and ends. (Example: 01-03 = January through March.)
29	25	Use Type (Status)	The status of the use - current or future. Enter the appropriate code from below. C - Current Use F - Future Use A - Abandoned
30	26	Use Authority	The authority code for the use. Enter the appropriate code from Glossary #5.

CARD #2

Columns	Item #	Name	Definition
31-38	27	Total Use in CFS	If the use is reported as a flow rate, enter the amount to the nearest 1/10,000 cfs. (Convert GPD amounts to cfs. 646.27 GPD = .001 cfs.). Enter the total beneficial use amount.
39-45	28	Use in Acre-feet	If the use is reported as an annual quantity, enter the actual total annual beneficial use in acre-feet to the nearest 1/100 acre-foot. Used with reservoirs and most consumptive uses.
46-49	29	Year	The year that the use began or is anticipated to begin. Enter the year.
50-57	30	Priority Date	Priority date being claimed or determined by adjudication. Enter the year, month, and day in the YYYYMMDD format, using the standard two digit numerical codes for month and day. A non-reserved right priority date is the date the water was first put to beneficial use. In the case of a reservoir, the date the reservoir was constructed. Reserved right priority dates vary, depending upon the date of the legal mandate which grants authority for the reservation. See Glossary #6 for priority dates for reserved water.
58-65	31	Application Date	Date of application, notification, or filing to state agency or court. Enter the data in the YYYYMMDD format.
66	32	Application Type	A code identifying the type of application being made. Enter the appropriate code from below. A - Application to state agency. N - Notification to state agency. F - Filing with court. B- Both application and notification to state agency (example, application for appropriative right on a reserved water)

CARD #2

Columns	Item #	Name	Definition
67-74	33	Adjudication Date	The date of adjudication decree. Enter the date in YYYYMMDD format.
75-79	--	Record Identifier	See Item #17.
80	—	ADP Action Code	See Item #18.

CARD #3

Columns	Item #	Name	Definition
1-2	34	Meridian	The principle meridian where the use occurs. Enter the numerical symbol found in Glossary #7. DED 1703.
3-7	35	Township	The township in which the use occurs. Enter the five position code which uses the first three positions for whole numbers, the fourth position for fractions according to the code shown below, and the fifth position for the north-south designation. DED 1695. 0 = whole township 1 = 1/4 township 2 = 1/2 township 3 = 3/4 township Example: 1271N = T. 127 1/4 N. 0030S = T. 3 S.
8-12	36	Range	The range in which the use occurs. Enter the five positional code which uses the first three positions for whole numbers, the fourth position for designation of fractional ranges according to the code shown below, and the fifth position for the east-west designation. DED 1699. 0 = whole range (not fractional) 1 = 1/4 range 2 = 1/2 range 3 = 3/4 range Example: 0562E = R. 56 1/2 E. 0610E = R. 61 E.
13-15	37	Section/Tract	The section or tract in which the use occurs. Enter the numerical designation for the section or the alpha or numeric tract designation. A section is defined as a major subdivision of a township, normally a quadrangle approximately one mile square, containing approximately 640 acres. A tract is defined as an irregular area at large usually within a township. DED 2506. Example: 012 = Section 12 44B = Tract 44B

CARD #3

Columns	Item #	Name	Definition
16	38	Survey Type	A code indicating the type of survey (special, rectangular, mineral, etc.). For position approximation and data-relating purposes, unsurveyed and unprotracted land and water areas will be identified by paper protraction through use of nominal land descriptions. The survey number must accompany this entry unless the description is in aliquot parts, unnumbered lots, or some metes and bounds codes. Enter the appropriate survey type code from Glossary #8. DED 3131.
17	39	Survey Note	A code used to identify cadastral survey exceptions. (Code to be established yet 6/1/79) DED 2920.
18-24	40	Survey Number	The consecutive number assigned to a type of survey; unique for each state. This space also accommodates the lot number if required. Enter the number with the last digit in the right hand space; leave unused spaces blank. The space will also accommodate a one or two letter suffix (Example: 20432AA). DED 3118.
25-28	41	Subdivision (Aliquot Part)	The 40-, 80-, 160-, 320-, or 640-acre subdivision containing the source or development. DED 2904. Enter the smallest subdivision containing the entire project. (Example NENW)
29-56	42-49	Place of Diversion	The elements and definitions correspond to those listed for Place of Use (Items 34-41). Used where water is physically diverted from a well, stream, or spring for use elsewhere.
57-58	50	Number of Points of Use	The number of points at which the source is put to use. (Example: A well with pipelines to three tanks has three points of use.) Enter the number with the last digit in the right hand space; leave unused spaces blank.

CARD #3

Columns	Item #	Name	Definition
59-74	51	Remarks 1	Enter the source of the priority date (item 30). Examples include: Source - Enter Patent Date* - Patent Date Appraisal Date* - Appraisal Date Date of Acquisition*- Acquired Date Construction Date (no water filing) - JDR Date Reservation Date - Res. Date Date on BLM Water Filing Documents - Water File Date Date the Project Was First Identified (no supporting documents other than aerial photos) - Iden. Date
75-79	--	Record Identifier	See Item #17.
80	--	ADP Action Code	See Item #18.

*For L.U. Lands

CARD #4

Columns	Item #	Name	Definitions
1-6	52	Storage Capacity in Acre-feet	The storage capacity of the impoundment in acre-feet to the nearest 1/10 acre-foot. Enter the orignial installed capacity without discounting for siltation. When the storage capacity is not given use the following formula: D x SA x 0.4 = Reservoir Capacity D = Maximum Depth (item 54) SA = Surface area in acres Place the last digit in the right hand space; leave unused spaces blank
7-12	53	Surface Acres	The maximum water surface area of the impoundment at the spillway elevation to the nearest 1/10 of an acre.
13-15	54	Maximum Depth	The maximum height of the dam in feet to the spillway. If not applicable, leave blank.
16	55	Storage Type	The type of impoundment. Enter the appropriate code from the following list: R = Reservoir (man-made) C = Catchment (guzzler) L = Lake (natural) E = Excavated Pit (no dam)
17-21	56	Storage Tank Capacity in Gallons	The tank storage capacity in gallons to the nearest gallon. Place the last digit in the right hand space; leave unused spaces blank. If more than one tank is included, enter the combined total storage capacity.
22-27	57	Conveyance Capacity	The design capacity of the conveyance facility (ditch, pipeline, etc.). Enter the amount to the nearest 1/1000 cfs.
28	58	Conveyance Type	The type of facility used to convey the water to the place of use. Enter the appropriate code from the list below. P = Pipeline D = Ditch or Canal
29-34	59	Irrigation Acres	The acreage of public land under irrigation from this source. Enter the number of acres to the nearest acre.

CARD #4

Columns	Item #	Name	Definition
35-36	60	Special Comment Code	A code to denote special circumstances relating to this water use record. See Glossary #9 for codes.
37-56	61	Stream Name	The name of the stream nearest the development or the stream from which the water is being diverted. Generic names such as river or creek should be included. If not enough spaces are available, initials or abbreviations should be used. Use names shown on USGS quads if available.
57-74	62	Remarks 2	This is an open field for state use.
75-79	--	Record Identifier	See Item #17.
80	--	Action Code	See Item #18.

CARD #5

Columns	Item #	Name	Definitions
		Place of Instream Use	
1-5	63	Stream Mile, Start	The upstream mile where the place of instream use begins, to the nearest tenth mile. The location to be described will normally be the upstream point where the public land boundary intersects the stream channel or meander line.
6-10	64	Stream Mile, End	The downstream mile where the place instream use ends, to the nearest tenth mile. The location to be identified will normally be the downstream boundary intersection of the tract described in the preceding element. Only one contiguous tract of public land should be described in each ADP entry. Stream mileages measured upstream from the mouth of the system (such as the mouth of the Yellowstone) should be obtained from state agency publications, or in the absence of a state report, from the Corps of Engineers published river mileages. These references normally tabulate to the nearest tenth mile. BLM measurement or estimation of a final tributary mileage will be necessary in many cases.
11-46	65	Amount of Instream Flow or Schedule of Flows	The month-by-month, non-diverted instream flow volume needed for all purposes. This entry relates to live streams traversing or bordering public lands. Record in cubic feet per second to the nearest cfs. Place the last digit in the right hand space; leave unused spaces blank. No entry should be made for months during which no need exists for instream flow volume.

CARD #5

Columns	Item #	Name	Definition
47-50	66	Number of Livestock	The total number of livestock utilizing the water source. See Chapter IV to determine number of livestock.
51-57	67	First Use in Acre-Feet	The number of acre-feet per year required to accommodate the first use as coded in Item #11.
58-64	68	Second Use in Acre-Feet	The number of acre-feet per year required to accommodate the second use as coded in Item #12.
65-71	69	Third Use in Acre-Feet	The number of acre-feet per year required to accommodate the third use as coded in Item #13. If no third use is coded, leave this blank. NOTE: The sum of the amounts recorded in Items 67-69 should equal the total recorded in Item #28.
72-74	70	Land Status	Land Status refers to the ownership of the land (place of use). Enter appropriate Land Status code from Glossary #10.
75-79	--	Record Identifier	See Item #17.
80	--	ADP Action Code	See Item #18.

CARD #6

Columns	Item #	Name	Definitions
1-27	71	Name of Recorded Appropriator	Enter the name of the person or agency recorded on the water right. The 27 spaces will accommodate such agency names as Bureau of Land Management or Farm Home Administration. Begin the entry in the left hand space; leave unused spaces blank.
28-37	72	Number of Decree or Filing	The number issued by the court or state agency identifying the water claim. Place the last digit in the right hand space; leave unused spaces blank.
38-40	73	Book Number	The number or letter used by the county to designate the book in which a filed application or notice is recorded.
41-43	74	Page Number	The page number on which the filing is recorded.
44	75	Type	The type of record in which the filing is recorded. Code according to the system below: M = Miscellaneous records W = Water Rights records
45-74	76	Remarks 3	Open field for state use.
75-79	—	Record Identifier	See Item #17.
80	--	Action Code	See Item #18.

CARD #7

Columns	Item #	Name	Definitions
1-24	77	Primary Tributary	The stream into which the stream from Item #61 empties. L or R - These refer to the Left Bank or Right Bank. This identifies the side from which the tributary enters the main stream as seen by an observer facing down the main stream. A Right Bank tributary, for example, would enter the main stream on a downstream-facing observer's right.
25-49	78	Secondary Tributary	The stream into which the primary tributary empties. L or R is designated as in #77.
50-74	79	Tertiary Tributary	The stream into which the secondary tributary empties.
75-79	--	Record Identifier	See Item #17.
80	--	Action Code	See Item #18.

GLOSSARY #1 - IDENTIFIER CODES

Items 1 - 5

STATE AND COUNTY CODES

MONTANA - STATE CODE MT

Code	County
001	Beaverhead
003	Big Horn
005	Blaine
007	Broadwater
009	Carbon
011	Carter
013	Cascade
015	Chouteau
017	Custer
019	Daniels
021	Dawson
023	Deer Lodge
025	Fallon
027	Fergus
029	Flathead
031	Gallatin
033	Garfield
035	Glacier
037	Golden Valley
039	Granite
041	Hill
043	Jefferson
045	Judith Basin
047	Lake
049	Lewis and Clark
051	Liberty
053	Lincoln
055	McCone
057	Madison
059	Meagher
061	Mineral
063	Missoula
065	Musselshell
067	Park
069	Petroleum
071	Phillips
073	Pondera
075	Powder River
077	Powell
079	Prairie

STATE AND COUNTY CODES

MONTANA - STATE CODE MT

Code	County
081	Ravalli
083	Richland
085	Roosevelt
087	Rosebud
089	Sanders
091	Sheridan
093	Silver Bow
095	Stillwater
097	Sweet Grass
099	Teton
101	Toole
103	Treasure
105	Valley
107	Wheatland
109	Wibaux
111	Yellowstone
113	Yellowstone National Park

NORTH DAKOTA - STATE CODE ND

Code	County
001	Adams
003	Barnes
005	Benson
007	Billings
009	Bottineau
011	Bowman
013	Burke
015	Burleigh
017	Cass
019	Cavalier
021	Dickey
023	Divide
025	Dunn
027	Eddy
029	Emmons
031	Foster
033	Golden Valley
035	Grand Forks
037	Grant
039	Griggs

STATE AND COUNTY CODES

NORTH DAKOTA - STATE CODE ND

Code	County
041	Hettinger
043	Kidder
045	LaMoure
047	Logan
049	McHenry
051	McIntosh
053	McKenzie
055	McLean
057	Mercer
059	Morton
061	Mountrail
063	Nelson
065	Oliver
067	Pembina
069	Pierce
071	Ramsey
073	Ransom
075	Renville
077	Richland
079	Rolette
081	Sargent
083	Sheridan
085	Sioux
087	Slope
089	Stark
091	Steele
093	Stutsman
095	Towner
097	Traill
099	Walsh
101	Ward
103	Wells
105	Williams

SOUTH DAKOTA - STATE CODE SD

Code	County
003	Aurora
005	Beadle
007	Bennett
009	Bon Homme

STATE AND COUNTY CODES

SOUTH DAKOTA - STATE CODE SD

Code	County
011	Brookings
013	Brown
015	Brule
017	Buffalo
019	Butte
021	Cambell
023	Charles Mix
025	Clark
027	Clay
029	Codington
031	Corson
033	Custer
035	Davison
037	Day
039	Deuel
041	Dewey
043	Douglas
045	Edmunds
047	Fall River
049	Faulk
051	Grant
053	Gregory
055	Haakon
057	Hamlin
059	Hand
061	Hanson
063	Harding
065	Hughes
067	Hutchinson
069	Hyde
071	Jackson
073	Jerauld
075	Jones
077	Kingsbury
079	Lake
081	Lawrence
083	Lincoln
085	Lyman
087	McCook
089	McPherson
091	Marshall
093	Meade
095	Mellette
097	Miner
099	Minnehaha

STATE AND COUNTY CODES

SOUTH DAKOTA - STATE CODE SD

Code	County
101	Moody
103	Pennington
105	Perkins
107	Potter
109	Roberts
111	Sanborn
113	Shannon
115	Spink
117	Stanley
119	Sully
121	Todd
123	Tripp
125	Turner
127	Union
129	Walworth
131	Washabaugh
135	Yankton
137	Ziebach

DISTRICT & RESOURCE AREA CODES

MILES CITY - DISTRICT CODE 02

Code	Resource Area
48	Big Dry
78	Powder River
88	South Dakota

DICKINSON - DISTRICT CODE 03

Code	Resource Area
48	West River
58	East River

LEWISTOWN - DISTRICT CODE 06

Code	Resource Area
48	Valley
58	Phillips
68	Havre
78	Billings
88	Judith

DISTRICT AND RESOURCE AREA CODES

BUTTE - DISTRICT CODE 07

Code	Resource Area
48	Garnet
58	Headwaters
68	Dillon

PLANNING UNIT CODES

MILES CITY DISTRICT

Big Dry Resource Area

Code	Planning Unit
01	Musselshell
02	Haxby
03	McCone
04	N. Rosebud
05	Kinsey
06	Jordan
07	Circle
14	N. Prairie
15	S. Prairie
16	Baker
17	Richland-Glendive
19	Wibaux

Powder River Resource Area

Code	Planning Unit
08	Box Elder
09	Custer
10	Coalwood
11	Ekalaka
12	S. Rosebud
13	Decker-Birney
29	Treasure

South Dakota Resource Area

Code	Planning Unit
22	Big Bend
23	Newell
24	Center of Nation
25	Ft. Meade
26	Exemption
27	West River
28	East River

PLANNING UNIT CODES

DICKINSON DISTRICT

West River Resource Area

Code	Planning Unit
01	Mercer
02	Dunn
03	Stark
04	Billings
05	Slope
06	Bowman
07	Hettinger
08	Adams
09	Golden Valley
10	Morton
11	Grant
12	McKenzie
13	McLean
14	Burleigh
15	Sioux
16	Oliver

East River Resource Area

Code	Planning Unit
20	Williams
21	Divide
22	Burke
23	Renville
24	Bottineau
25	McHenry
26	Ward
27	Mountrail
28	Sheridan
29	North Dakota East

LEWISTOWN DISTRICT

Valley Resource Area

Code	Planning Unit
01	Opheim
02	Rock Creek
03	Grassland
04	Glasgow
05	Sagehen
06	Willow Creek
20	Medicine Lake

PLANNING UNIT CODES

LEWISTOWN DISTRICT (cont.)

Phillips Resource Area

Code	Planning Unit
07	Whitewater
08	Big Bend
09	Alkali
10	Beaver Creek
11	UL Bend
12	Little Rockies
13	Zortman

Havre Resource Area

Code	Planning Unit
15	Big Flat
16	Chinook
17	Chief Joseph
18	South Bearpaw
19	Triangle

Billings Resource Area

Code	Planning Unit
21	Bighorn
22	Red Lodge
23	Yellowstone
24	West Musselshell
25	Bull Mountains

Judith Resource Area

Code	Planning Unit
26	Petroleum
27	Belt Mountains
28	Fergus

BUTTE DISTRICT

Garnet Resource Area

Code	Planning Unit
01	Blackfoot
02	Hoodoo
03	Philipsburg
04	Salmon Lake
05	Avon

PLANNING UNIT CODES

BUTTE DISTRICT (cont.)

Headwaters Resource Area

Code	Planning Unit
06	East Slope
07	Gates of the Mountains
08	Marysville
09	Jefferson
10	Broadwater
11	Three Forks
12	Teton River
13	Cascade
14	Meagher
15	Park

Dillon Resource Area

Code	Planning Unit
16	Rochester
17	Madison River
18	Ruby River
19	Dillon West
20	Tendoy Mountains
21	Blacktail
22	Centennial
23	Big Hole

GLOSSARY #2 - USE CODES

Items 11 - 14

CODE	USE
A	DOMESTIC - All human consumption such as at recreation sites, administrative sites, and municipal watersheds
C	RECREATION - All non-consumptive recreation use
E	STOCKWATER - Water for livestock grazing
F	IRRIGATION
G	WILDLIFE - All consumptive use
H	WILDLIFE (consumptive and non-consumptive) Riparian vegetation maintenance, water supply maintenance during drought periods, evaporation and seepage losses. (Use with reservoirs, lakes and potholes.)
I	MINING
K	POWER - Water used for hydroelectric and hydromechanical power generation
L	INSTREAM - All non-consumptive wildlife use
N	NAVIGATION
O	FLOOD CONTROL - Water stored, directed or rerouted for the purpose of flood control or abatement
T	INDUSTRIAL
U	WILD HORSES
Z	OTHER

GLOSSARY #3 - BROAD SOURCE TYPE CODES

Item 19

CODE	DESCRIPTION
D	DIVERSION OR USE FROM STREAM
S	DIVERSION OR USE FROM SPRING
R	IMPOUNDMENT (Reservoirs, pits, etc., which are man-made and natural water bodies with artificially controlled water levels.)
W	WELL (groundwater)
I	INSTREAM FLOW
L	LAKE (Natural water bodies)
U	UNKNOWN
C	COLLECTIVE (Man-made structures such as a guzzler or catchment which collect water from an impermeable surface)

GLOSSARY #4 - SPECIFIC SOURCE TYPE CODES

Item 20

CODE	DEFINITION
ST	Stream
PW	Pumped Well
AW	Artesian Well
DS	Developed Spring
US	Undeveloped Spring
LK	Lake (natural)
PH	Pothole Lake (natural)
RS	Reservoir (with embankment)
PT	Pit Reservoir
PR	Pit Retention Reservoir

GLOSSARY #5 - USE AUTHORITY CODES

Item 26

CODE	AUTHORITY
A	BLM Reserved Right - Reserved right as identified in the Solicitor's Opinion #M-36914 excluding Public Water Reserves.
B	STATE PERMIT PROCEDURE (BLM right) - Includes any situation in which the state has been notified of BLM's intent to use water other than those identified as being reserved in the Solicitor's Opinion #M-36914. Copies of a State Certificate of Water Right; Notices of Appropriation, MSO-f-65; or Notices of Completion, State form 602 indicate the state has been notified. If the state has been notified of a source which falls under a BLM reserved right as identified in the Solicitor's Opinion #M-36914, use the earliest priority date with the appropriate use authority code. A remark should be added on the coding form indicating the situation.
C	STATE PERMIT PROCEDURE (Private right).
F	USE RIGHT - A claim established by use, without notice, filing, or decree.
G	PUBLIC WATER RESERVE - Reserved right as identified in the Solicitor's Opinion #M-36914. Springs on LU land do not qualify for Public Water Reserves.
H	STATE RESERVATION - A reservation of water for instream or future consumptive use granted by a state.
I	WATER IS PURCHASED FROM MUNICIPAL OR OTHER SUPPLIER.
K	ADJUDICATED BLM RIGHT.
L	ADJUDICATED PRIVATE RIGHT.

GLOSSARY #6 - PRIORITY DATES FOR RESERVED WATER

Reserve	Priority Date
Public Water Reserves (PWR's) that have a number between 1-106. These were withdrawn prior to Executive Order of April 17, 1926.	Date of withdrawal.
PWR's that have a number greater than 106 and those which have not been formally withdrawn (are not recorded on the Master Title plats).	April 17, 1926.
Wells drilled for oil and gas prospecting which contain water suitable for public use which were purchased by the United States.	Date of development as a water well. Date water put to beneficial use.
Water sources located within livestock driveways necessary to provide for stock watering while moving livestock through these corridors.	Date that the livestock driveway was withdrawn. NOTE: PWR's and sources with existing state appropriative claims may be located within the driveway. Use the earliest priority data and explain situation in the remarks section.
Prior Mountain Wild Horse Range. All waters necessary for maintaining the wild horse herd.	September 9, 1968. For waters which have existing claims and PWR's, use the earliest priority date.
Wild and Scenic Rivers. All unappropriated water to fulfill the purpose of the Act.	Date of designation.
Wilderness. All unappropriated water to fulfill the purpose of the Act.	Date of Designation.

GLOSSARY #7 - PRINCIPAL MERIDIAN CODES

Items 34 and 42

CODE	DESCRIPTION
05	5th PM
06	6th PM (not likely to be used)
07	Black Hills
20	Principal Montana - used throughout the entire state of Montana

GLOSSARY #8 - SURVEY TYPE CODES

Item 38

CODE	DESCRIPTION
A	ALIQUOT PART
B	ALIQUOT PART - BELOW 40 ACRES
C	COAL SURVEY
D	ALLOTMENT SURVEY
E	METES AND BOUNDS SURVEY
F	FARM UNIT
G	LAND GRANT SURVEY
H	HOMESTEAD ENTRY SURVEY
K	BLOCK
L	LOT
M	MINERAL SURVEY
N	TOWNSITE SURVEY
O	UNNUMBERED LOT
P	PARCEL
R	PRIVATE LAND SURVEY
S	US SURVEY
T	TRACT
U	UNSURVEY LAND (PROTRACT)
V	VOID (NON-EXISTANT SUBDIVISION)
W	UNSURVEY WATER (PROTRACT)
X	EXCHANGE SURVEY
Z	UNSURVEYED-UNPROTRACTED

GLOSSARY #9 - SPECIAL COMMENT CODES

Item 60

CODE	DEFINITION
PS	Source on private lands
SS	Source on State lands
FS	Source on Federal lands other than BLM
IN	Source inventoried but no claim filed by BLM
IR	Instream flow reservation
WP	Water permit issued to other than BLM
CA	BLM is co-applicant with others
ES	BLM has easement for this project
NB	Non-Bureau project

GLOSSARY #10 - LAND STATUS CODES

Item 70

CODE	DEFINITION
LU	Source located on Land Utilization Lands
LUP	Source located on property line between Land Utilization Lands and other lands
PL	Source located on Public Lands
PLP	Source located on property line between Public Lands and other lands

Appendix C

OFFICE WORK SHEET

Drainage Incl. WRC # :
County, Incl. # :
BLM Planning Unit, Incl. # :

Proj No.	ADP No.	Project Name	Twp.	Range	Sec.	Subdivision	WRC Number	Uses	Size or Amount	Priority Date	

DATA SOURCES

Drainage Incl. WRC # :
County, Incl. # :
BLM Planning Unit, Incl. # :

Proj No.	ADP No.	Project Name	Place of Use	Place of Diversion	Storage Capacity	First Use	Second Use	
			Location	Location				

LOCATION

AP = Aerial photo protracted to map
JDR = JDR files
WD = Existing water filing documents
MT = MT plats
FC = Field checked

STORAGE CAPACITY

JDR = JDR files
WD = Existing water filing documents
F = Empirical formula D x SA x 0.4 = SC
FM = Field measured

USE

L = Procedure identified in handbook for computing livestock use
RC = Remaining capacity of the reservoir

O = Other, explain _____

N = Other, explain _____

PROCEDURES CHECKLIST FOR BLM WATER USE INVENTORY

Please initial and date each Planning Unit as the procedure is completed.	County									
	P.U.									
Projects listed on "office sheets"										
JDR Files Reviewed										
Courthouse Records Reviewed										
Aerial Photos Reviewed										
Legal Desc. from Aerial Photos matched to Proj.										
Unrecorded Reservoirs Listed										
Reservoir Surf. Area Est. from Aerial Photos										
LU Cont. Files Reviewed										
Projects marked on USGS Topographic Quads										
Field Investigations Assigned										
Field Invest. Complete-Info. recv'd MSO										
Coding Completed										
Keypunching Completed										
Printout Edited										
Corrections Input										
Printout Edited										
All Proced. Completed										

JOB DOCUMENTATION REPORT MATRIX

WORK JOB CODE	TITLE	SUBACTIVITY 1250	1260	1285	1520	7100	7110	8100	8200	UNITS PRIMARY	SECONDARY
6000	RESOURCE PRODUCTION										
01	Revegetation Chemical		x	x		x	x	x	x	. . . Acre . . .	Target Species
02	Mechanical		x	x		x	x	x	x	. . . Acre . . .	Target Species
03	Burning		x	x		x	x	x	x	. . . Acre . . .	Target Species
04	Seeding or Planting		x	x		x	x	x	x	. . . Acre . . .	Species
10	Waterfowl Habitat			x			x			. . . Acre . . .	
11	Stream Fish Habitat			x			x			. . . Mile . . .	
12	Lake Fish Habitat			x			x			. . . Acre . . .	
14	Tree Planting or Seeding	x			x					. . . Acre . . .	Species
15	Stand Improvement	x								. . . Acre . . .	Number Treated (M)
6100	SITE IMPROVEMENT										
01	Revegetation Chemical		x							. . . Acre . . .	Target Species
02	Mechanical		x							. . . Acre . . .	Target Species
03	Burning		x							. . . Acre . . .	Target Species
04	Seeding or Planting		x		x					. . . Acre . . .	Species
05	Watershed Tillage		x		x					. . . Acre . . .	
17	Timber Site	x								. . . Acre . . .	
18	Pest Control	x								. . . Acre . . .	Target Species
19	Fire Breaks					x				. . . Mile . . .	
20	Fire Hazard Reduction					x				. . . Acre . . .	
6200	WATER DEVELOPMENT										
41	Reservoirs		x	x		x	x	x	x	. . . Number. . .	Cubic Yards.
42	Springs		x	x		x	x	x	x	. . . Number. . .	Gallons/Minute
43	Wells		x	x		x	x	x	x	. . . Number. . .	Gallons/Minute
44	Supplemental Facilities		x	x		x	x	x	x	. Pipeline *(miles)*.	New Waters
45	Catchments		x	x		x	x	x	x	. . . Number. . .	Gallons Storage
6300	WATER CONTROL										
46	Detentions & Diversions		x		x					. . Cubic Yards. .	Number
47	Dikes, Other Structures		x		x					. Cubic Yards. .	Linear Feet
6400	PROGRAM FACILITIES										
48	Fences, Enclosures, & Exclosures		x	x	x	x	x	x	x	. . . Mile . . .	Number Enclosures or Exclosures
49	Guards, Passes		x	x	x	x	x	x	x	. Guards *(number)*.	Number of Passes
75	Trails		x					x	x	. . . Mile . . .	

Form 1630–8a
(January 1973)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JOB DOCUMENTATION REPORT INSTRUCTIONS

GENERAL INSTRUCTIONS

District Manager prepares in *duplicate*. Retain original in District file. Submit copy to Director, DSC (D–820), Bureau of Land Management, Bldg. 50, Federal Center, Denver, Colorado 80225. *It is not necessary to prepare entire form on subsequent submissions.*

2. A "Job" is defined as an individual or specific work practice to be accomplished, as a unit, within a specified time period and is confined to one Work–Job Code (WJC). These Jobs are limited to Subactivities 1250, 1260, 1285, 1520, 7100, 7110, 8100, 8200, and private cooperative (Section 4/15).

3. Sections I, II, III, and IV are input data items. Sections V, VI, and VII are for District use. When data item is to be coded, refer to BLM Manual 1265, Appendix I, and Form 1630–8a. Other entries are self-explanatory (e.g., acres/AUM, percent, miles, etc.). Begin alpha codes in far left blocks and numerical codes in far right blocks. *Observe blocks and decimals to avoid digit misplacement.* Form may be completed with pen or pencil.

4. Sections I, II, III, and V will be prepared and submitted with the Annual Work Plan (AWP). Immediately following final inspection and acceptance, Section IV will be submitted. Job Correction and Abandonment reports may be submitted any time after initial submission. Private jobs (Section 4/15) and cooperative agreements in lieu of Section 4/15 permits are reported in the JDR System *after* completion.

5. Each District Manager will complete one (1) form for each Job.

SPECIFIC INSTRUCTIONS

(Items not specified are self-explanatory)

JOB IDENTIFICATION

Item

(1) *State* – Code according to BLM Manual 1265.

(2) *District* – Code according to BLM Manual 1265.

(3) *Job Number* – Numbers between 1 and 3999 are reserved. All submissions must have a Job number greater than 3999. *Duplicate numbers cannot be used.* Any number currently in master file (estimate, completion, etc.) cannot be reused until ADP has abandoned the Job.

(4) *Transaction Codes* – See Appendix 1, Page 1. Enter all Transaction Codes in red. (Codes 1–4 – Major Subactivity, Codes 5–8 – Minor Subactivity)
   (a) Sec. II – ANNUAL WORK PLAN INPUT DATA (Codes 1 and 5) – Prepare initial report and submit legible copy. (State Office copy – optional)
   (b) Sec. IV – PROGRESS REPORT (Codes 2 and 6) – When Job is finished, complete Sec. IV of original report. On copy submitted, circle Sec. IV heading in red and complete appropriate entries.
   (c) *Job Correction* (Codes 3 and 7) – Make correction on original in black pencil or ink. On copy submitted, circle in red the Item number being updated.

Item

   (d) *Job Abandonment* (Codes 4 and 8) – Submit machine copy. Circle *Job Identification Title* in red.
   (e) *Prior Completion* (Code 2) – Prepare original (Form 1630–8) with Sections I, III, and IV completed and circled in red. Use prior FY date in Items 92 and 93.
   (f) *Correction of Job ID* (Code 4) – To correct Job ID (State, District, Job Number), submit abandonment report for erroneous Job ID and resubmit all Job data with correct Job ID.

SECTION I – GENERAL AREA DESCRIPTION

(Complete appropriate parts for each Job reported)

Item

(5) *Job Name* – If more than 20 characters, abbreviate.

(6) *Special Project Code* – Report Job within geographic boundary of current Special Project Areas.

EXCEPTION *Montana* – If Job being reported falls within the geographic boundary of a State Grazing District, enter three-digit code.

(9) *County* – If Job falls in two counties, record county having majority of units involved.

Item

(10) *Watershed Area* – Leave blank if Phase I of WC&D system has not been completed.

(11) *Allotment Number* – Do not use pending development of instructions for identifying grazing allotments.

(12) *Wildlife Habitat Area* – Enter Code, if Job is located within the geographic boundary of an established Wildlife Habitat Area. (Example in BLM Manual 6611, Dead Cow Mountain would code as [T|O|3], Jones River would be [A|O|4].)

(13) thru (25) SITE AND VEGETATIVE DESCRIPTION – Data should reflect situation prior to treatment. Required for WJCs 6001 thru 6004 and 6101 thru 6105 *only*. Leave blank for all other WJCs.

(13) *Present Soil Surface Factor (SSF)* – Enter the two-digit SSF value determined after completion of *Determination of Erosion Condition Class* (Form 7310–12), for the jobsite.

(14) *Percent Slope* – Enter percent average slope for area.

(15) *Exposure* – Enter code number which describes the general exposure of entire Job area. (See Appendix 1)

(16) *Soil Texture* – Enter code which best describes surface soil for majority of Job area. (See Appendix 1)

(17) *Precipitation* – Enter average annual precipitation from nearest source, rounded to nearest whole number.

(18) *Elevation* – Estimate from nearest source. Round to nearest 100 feet.

(19) *Vegetative Subtype* – Code from BLM Manual 1265, Appendix 1, including Subactivity 125C.

(20) thru (22) COMPOSITION – These Items are used to describe the compositional makeup of vegetative community. (Sum of entries = 100%)

(23) thru (25) COVER – These items portray the percent ground cover. Ground cover is shown by percent bare ground (including rocks), litter, and vegetation. Vegetation includes grasses, forbs, shrubs, and trees less than 20 feet in height. (Sum of entries = 100%)

SECTION II – ANNUAL WORK PLAN INPUT DATA

(To be completed for all BLM cooperatively–financed Jobs. Do not use this Section when reporting private Jobs, e.g., Section 4/15, etc.)

Item

(75) *Subactivity* – Enter Subactivity which will fund the Job.

(76) *Work–Job Code* – Use input codes only. See BLM Manual 1632, Appendix 2, for use with Subactivity.

(77) and (78) UNITS PLANNED – Enter actual units planned under primary Subactivity. Primary units will be recorded to tenths of units. If a primary unit is one (1), record 1.0. Secondary units will be reported in *whole numbers* or *alpha codes*. (See Item 3 under General Instructions.)

(79) and (80) TIME OF AWARD – Enter anticipated date of contract award, materials purchased, or issued to Job.

(81) and (82) TIME OF COMPLETION – Enter anticipated completion date of contract.

(83) *Method* – Enter *Code 1* for *Contract*, *Code 2* for *Force Account* construction, or leave blank.

(84) thru (87) Enter data items from appropriate columns in Section V. Subactivities 7100 and 7110 are considered BLM cost items.

BLM COST

(84) *Material* – Enter total material cost from Section V, Column (d), rounded to nearest $100. This amount should be covered in AWP Cost Target and include stores issues and materials that are purchased direct to Job. Materials cost included in contract should *not* be included in this item.

(85) *Contract* – Enter total from Section V, Column (e). *(Exclude man-months cost)* Include materials furnished by Contractor. Round to nearest $100.

CONTRIBUTED COST

(86) *Materials* – Enter only undeposited Job cost from Section V, Column (f).

(87) *Labor/Equipment* – Enter only undeposited Job cost from Section V, Column (g). *(Do not include BLM man-months cost)*

MAINTENANCE

(88) *Responsibility* – Enter Code showing maintenance responsibility. (See Appendix 1)

(89) *Cycle* – Enter last digit of Fiscal Year in which Job is completed in far *left* block. Average maintenance cycle for this particular

type Job is entered in the two *right* blocks (e.g., 505 indicates Job was completed in a Fiscal Year which ended in a 5, such as 1955 and that the Job is to be inspected for maintenance needs every 5 years). When a Job has served its purpose, and no additional maintenance will be performed on the Job, a JDR Correction Report should be sent to DSC (D-820) with three (3) zeros in Item 89. The Job will no longer show a maintenance inspection need and will not appear on subsequent maintenance workload printouts.

SECTION III - JOB DETAIL AND BENEFITS

Item

(37) *Primary Job Objective* – Enter only one (1) objective code for a Job. (See Appendix 1)

(a) *Watershed Conservation and Development* (Codes 1 and 2) – Use with Subactivities 1260 or 1520 Jobs. For Conservation and Development Objective definition, see BLM Manual 7000.

(b) *Range Improvements* (Codes 3, 4, and 5) – Use with Subactivities 8100 and 8200 Jobs. Enter Code 3 if Job maintains present status, halts downward trend, or develops to adjudicated privileges; Code 4 if Job will develop to potential or site capacity; or Code 5 if Job facilitates management of livestock.

(c) *Wildlife Objectives* (Codes 6 and 7) – Use with Subactivities 1285 and 7110 Jobs. Enter Code 6 when primary objective is to maintain Wildlife Habitat; Code 7 when primary objective is to improve Wildlife Habitat.

(d) *Forest Development* (Code 8) – Use with Subactivity 1250 when primary objective is Timber Production.

(39) thru (45) PLANT AND PEST CONTROL – Complete for all Jobs in WJCs 6001 and 6101.

(39) *Chemical* – Enter chemical pesticide used. (See Appendix 1)

(42) *Method* – Complete for all Jobs in WJCs 6001 and 6101.

(45) *Mechanical* – Code from Appendix 1.

(47) thru (52) REVEGETATION – Applies to those Jobs where seeding or planting is needed to establish desired species. (WJC 6004, 6014, and 6104)

(47) *Pounds Seed/Acre* – Enter amounts to nearest tenth.

(48) *Seedlings/Acre* – Enter number of seedlings planted per acre.

Item

(49) *Method* – Enter method used to plant seeds or seedlings.

(51) *AUMs Livestock Forage Added* – Enter estimated annual increase in AUMs and/or additional AUMs made available for livestock use. Mandatory entry with WJCs 6001 thru 6004. No entry required for Subactivities 1285 and 7110.

(52) *Future SSF* – Enter anticipated SSF for a successful Job. Mandatory entry for all land treatment Jobs in Subactivities 1260, 1285, 1520, 8100, and 8200 for WJCs 6001 thru 6004 and 6101 thru 6105 only. Otherwise, leave blank.

WATERSHED TILLAGE

(54) *Method* – Code from Appendix 1.

FACILITIES

(55) *Type* – Code with WJC 6448 only.

(56) *Other Miscellaneous* – Code with WJC 6449 only.

WATER DEVELOPMENT/CONTROL

(59) *Structure Type* – Code from Appendix 1.

(60) and (61) *Storage (Ac. Ft.)* – Complete these Items for WJC 6346 and 6347. Complete only Item 60 for WJC 6241.

(62) thru (67) WILDLIFE HABITAT DEVELOPMENT/PROTECTION – See BLM Manual 6611 and Appendix 1 for Species Code. May be used to cite benefits which accrue from other Subactivity Jobs.

(62) *Type* – Code from Appendix 1. If there is an entry in this Item, an entry must also appear in Item 63.

(63) *Primary Species* – Code from Appendix 1. An entry is required for Subactivity 1285. If primary species is coded 100 thru 700 or 903, 904, and 905 (animal), entries must also appear in Items 62, 64, and 65. If primary species is coded 800 thru 902 (fish), entries must also appear in Items 62 and 66.

(64) *Animal Month* – Means a month's use whether grazing, nesting, or roosting. Estimate increase of animal months on jobsite, e.g., 200 ducks residence for 1 month = 200 animal months; 40 deer residence for 3 months = 120 animal months, etc.

(65) *Number Increase* – Enter estimate of number of animals maintained or increased.

Item

(66) *Pounds Fish Increase* – Enter estimate increase of pounds of fish per mile of stream or development.

(67) *Rare/Endangered* – Entry required if species identified in Item 63 is classified are *rare* or *endangered* in *Red Book*. Code from Appendix 1.

(68) thru (70) VISITOR DAYS ADDED – These entries are optional. Make entry if there is benefit as a result of Job. All 3 visitor day Items may have an entry from one Job. There can be an increase in hunting or fishing days without an increase in numbers.

SECTION IV – PROGRESS REPORT

(Complete for all Jobs immediately following final inspection and acceptance of work)

COMPLETION DATA

(90) UNITS *(Primary)* – These are actual primary units completed. (See Appendix 1 for reporting unit)

(91) UNITS *(Secondary)* – These are actual secondary units completed. See BLM Manual 1632 and Appendix 2 for identification of certain WJC providing secondary units.

(94) *Contract Number* – Enter that portion of Formal Contract No. beginning with CT[ ][ ][ ][ ][ ] which Job was constructed under. The first digit is FY. Example: CT[1][0][1][8][5], CT[2][0][0][0][1], CT[3][1][6][8][5], etc. No entry is necessary for informal or Force Account.

CONTRIBUTION DETAIL

(95) *Agreement* – Code from Appendix 1 to show how the Job was constructed. This is *not* a maintenance type agreement. Maintenance agreements are shown in Item 88 only.

(96) *Participant* – Code from Appendix 1. This Item refers to contributing participant only. Code 1 should *not* be used.

(97) *Contributor's Name* – If more than one individual is involved, enter primary contributor's name and *et al.* If another agency is involved, give name or agency (e.g., Dept. of Game and Fish, Bureau of Sport Fisheries and Wildlife, etc.).

Item

CONTRIBUTIONS

(98) *Deposited* – Enter, to nearest one hundred dollars, amount of contribution deposited. An entry *must* appear in Item 84 or 85. Items 95 thru 97 *must* be completed. Code 1 *must* be used in Item 95.

(99) and (100) *Undeposited* – Enter estimated value of materials and/or Labor/equipment contributed to Job. If an entry is made in Item 84 or 85, Code 1 *must* appear in Item 95 and an entry *must* be made in Item 86 or 87. If no entries are made in Item 84 or 85 then Code 2 or 3 *must* appear in Item 95.

SECTION V
DETAIL ESTIMATE OF UNITS AND COSTS

This section is prepared by District Office in support of the AWP submission.

SECTION VI – LOCATION PLAT

(Prepare upon completion of Job)

(a) Use standard symbols from *Map Symbol Handbook*. (See BLM Manual 9161)

(b) Use black pencil or pen in all entries which designate location. For District use, color may be used for delineating ownership, allotments, boundaries, etc.

(c) Locate Job to nearest 40 acres.

(d) For a linear Job (fence, pipeline, etc.) that follows a subdivision line, offset symbol slightly to the side you want credited with Job, i.e., a fence on line between Section 5 (private land) and Section 6 (BLM land) show fence inside Section 6.

(e) If Job includes or crosses non-BLM lands, indicate these lands by either listing the description or by a hachure symbol.

SECTION VII
NARRATIVE DESCRIPTION OF JUSTIFICATION

Provided for such narrative descriptions, justifications, etc., as may be needed or requested.

1632 - JOB DOCUMENTATION REPORTING SYSTEM

Job Documentation Report

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JOB DOCUMENTATION REPORT

JOB IDENTIFICATION

1. State (2–3) . . . 11
2. District (4–5) . . . 05
3. Job No. (6–9) . . . 4391
4. Transaction Code (10) . . . 2

I – GENERAL DESCRIPTION Card 1

5. Job Name (11–30): SPLIT BUTTE SEEDING

LOCATION CODES

6. Special Project Code (31–34) . . .
7. Planning Unit (35–36) . . . 05
8. Sub-Basin (37–38) 42 9. County (39–41) 013
10. Watershed No. (42–44) . . .
11. Allotment No. (45–47) . . .
12. Wildlife Habitat Area (48–50) . . .

SITE AND VEGETATIVE DESCRIPTION

13. Present SSF (51–52) 38 14. % Slope (53–54) 02
15. Exposure (55) 5 16. Soil Texture (56) . . . 4
17. Precipitation (inches) (57–58) . . . 10
18. Elevation (feet) (59–63) . . . 4500
19. Vegetative Subtype (64–66) . . . 181

COMPOSITION (Percent)

20. Grasses (67–68) 44 21. Forbs (69–70) . . . 12
22. Browse (71–72) . . . 44

COVER (Percent)

23. Vegetative (73–74) 20 24. Litter (75–76) . . . 48
25. Bare Ground (77–78) . . . 32

II – ANNUAL WORK PLAN INPUT DATA Card 2

75. Subactivity (11–14) . . . 1260
76. Work Job Code (15–18) . . . 6104

UNITS PLANNED

77. Primary (19–24) . . . 1800.0
78. Secondary (25–29) . . . AGCR

TIME OF AWARD

79. Fiscal Year (30–31) 73 80. Third (32) . . . 1

TIME OF COMPLETION

81. Fiscal Year (33–34) 73 82. Third (35) . . . 1

BLM COST 83. Method (36) . . . 1

84. Material (37–41) . . . 5000
85. Contract (42–47) . . . 3600

CONTRIBUTED COST

86. Material (48–52) . . .
87. Labor/Equipment (53–57) . . . 200

MAINTENANCE

88. Responsibility (58) 89. Cycle (59–61) . . . 305

III – JOB DETAILS AND BENEFITS Card 3

37. Primary Job Objective (11) . . . 1

PLANT AND PEST CONTROL

39. Chemical (12) 42. Method (13) . . .
45. Mechanical – Method (14) . . .

ARTIFICIAL REVEGETATION

47. Pounds Seed/Acre (15–17) . . . 8.0
48. Seedlings/Acre (18–21) 49. Method (22) 1
51. AUM's Livestock Forage Added (23–26) . . . 200
52. Future SSF (27–28) . . . 20

WATERSHED TILLAGE 54. Method (29) . . .

FACILITIES 55. Type (30) 56. Other Misc. (31)

WATER DEVELOPMENT CONTROL

59. Structure Type (32) . . .
STORAGE (Ac. Ft.) 60. Flood (33–38)
61. Silt (39–44)

WILDLIFE HABITAT DEVELOPMENT PROTECTION

62. Type (45–46) 21 63. Primary Species (47–49) 111
64. Animal Months (50–54) . . . 240
65. Number Increase (55–59) . . . 60
66. Pounds Fish Increase (60–64) . . .
67. Rare Endangered (65) . . .

VISITOR DAYS ADDED 68. Fisherman (66–69)
69. Hunter (70–73) 70. Other (74–77)

IV – PROGRESS REPORT Card 4

COMPLETION DATA

UNITS 90. Primary (11–16) . . . 1790.0
91. Secondary (17–21) . . . AGCR
TIME 92. Fiscal Year (22–23) . . . 73
93. Third (24) . . . 2
94. Contract No. (25–29) . . . CT 3-172

CONTRIBUTION DETAIL

95. Agreement (30) 1 96. Participant (31) . . . 3
97. Contributor's Name (32–51): A RANGE USER

CONTRIBUTIONS

98. Deposited (52–56) . . .
Undeposited
99. Materials (57–61) . . .
100. Labor/Equipment (62–66) . . . 200

V – DETAIL ESTIMATE OF UNITS AND COSTS

WORK DESCRIPTION AND MATERIALS (a)	UNITS EA MILE, ETC (b)	UNITS COST (c)	BLM COSTS MATERIALS (d)	BLM COSTS CONTRACT (e)	COOPERATOR COSTS MATERIALS (f)	COOPERATOR COSTS LABOR (g)
Formal Contract	1,800 ac.	2.00		3,600		
Seed: Crested Wheat	10,800 lb.	.25	2,700			
Yellow Clover	3,600 lb.	.25	900			
Drill repair + maintenance	1,800 ac.	.50	900			
Equipment + vehicle			300			
Posting Material			150			
TOTALS Materials			$4,950			
Labor/Equipment				$3,600		$200

Form 1630-8 (November 1972)

Form 1630-8
(.1)

1632 - JOB DOCUMENTATION REPORTING SYSTEM

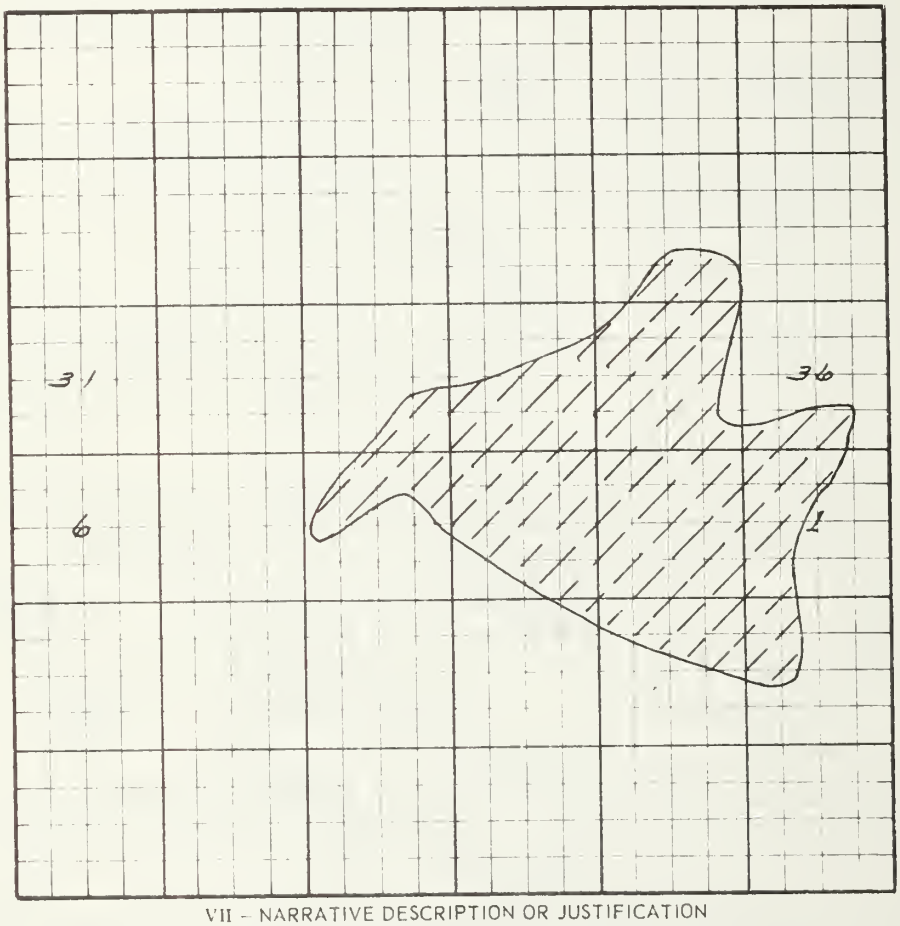
Job Documentation Report

JOB IDENTIFICATION STATE 11 DISTRICT 05 JOB NUMBER 4391

VI - LOCATION PLAT

Scale 1 inch 1 mile

T 5+6 5 R 25 E Meridian BOISE



VII - NARRATIVE DESCRIPTION OR JUSTIFICATION

Approximately 70 percent of outlined area is to be seeded. The seeded area will establish a perennial grass in a predominantly cheatgrass type. The perennial grass type will reduce fire hazard.

Prepared by	K. Olenik	Title	Area Manager	Date	8-3-72
Approved by	C. C. Sanders	Title	District Manager	Date	8-8-72

Release 1-826
12/5/72

2311 (930)

E F S 12/10
Whittington 12/12/79
Morrison abc 12/8/79

DEC 13 1979

Memorandum

To: Chief, Division of Technical Services

From: Chief, Division of Resources

Subject: Interpretation, Public Water Reserve No. 107

Progress in the current Division of Resources water inventory project indicates that significant numbers of water sources qualifying for PWR No. 107 designation will be identified during the next two years.

At a meeting on September 11, it was agreed that Resources would furnish a representative number of identified sources to Management Services, through Technical Services, to be used as an example in establishing procedures for notation of the records. The attachments entitled, "Classification Determination," list all known springs in the Billings Resource Area qualified for PWR No. 107 designation, which are not already so designated.

The accompanying memorandum to Management Services, prepared for your signature, follows the example of an earlier Manual Release, Volume V, Part 4, Chapter 18. It will serve as a memorandum of transmittal and request for action to the Division of Management Services.

/S/ BILL D. NOBLE

Enclosures

930:ESchmidt:bw:12/7/79:x6474

MEMORANDUM

To: Chief, Division of Management Services

From: Chief, Division of Technical Services

Subject: Interpretation, Public Water Reserve No. 107

By Executive Order of April 17, 1926 (Public Water Reserve No. 107), every smallest legal subdivision of the public land surveys remaining vacant, unreserved, and unappropriated, which contained a spring or water hole needed or used by the public for watering purposes was withdrawn by terms of the order, without identification of the lands affected. Regulations governing public water reserves and the use of water found in such reserves are contained in 43 CFR 2311.

Subsequently the Federal Land Policy and Management Act of October 21, 1976 (Public Law 94-579, 90 Stat. 2743) , revoked Executive Order of April 17, 1926, thus limiting PWR No. 107 designations to qualifying sources of water in existence during the interval between April 17, 1926, and October 21, 1976.

Evidence available to this office discloses that each smallest legal subdivision described in the attached list contains a source of water which satisfies the current criteria for withdrawal under Public Water Reserve No. 107. Pursuant to authority delegated to me by the State Director, MSO Manual Supplement Release No. 1-159, it is requested that your office note the records to reflect the status of the described lands.

PWR NO. 107 CLASSIFICATION DETERMINATION

COUNTY: _____

SERIAL ID. NO.	JDR NO.	DEVELOPMENT NAME & TYPE	TWP	RNG	SECT	SUBDIV.	ACRES	REMARKS

RESERVOIR SURFACE AREA AND CAPACITY ESTIMATES

Estimation of reservoir surface area is accomplished through use of a dot grid system developed by the Wyoming State Office. The enclosed tables show the direct conversion of number of dots to surface acres for each grid size. Since many of the reservoirs are small (less than 1 acre surface), the two highest intensity grids were used most often (1 dot = 0.039 acre and 1 dot - 0.156 acre).

Due to the small size of these grids, it is necessary to magnify the grids and reservoirs to count the dots accurately. The use of a magnifying ocular or stereoscope allows the user to locate the high water line of the reservoir as well as to count the dots more accurately. It is necessary to make three independent measurements of each reservoir and to average the results to eliminate bias and increase accuracy.

Planimetric maps enlarged to photo scale and USGS topographic maps are used to obtain the location of the reservoir.

Sample tests were run in the Montana State Office comparing actual surface area with that arrived at using the dot grid system. On an average, the dot grid system was within 10 percent of the actual surface area.

The following identifies more specifically the procedures used to estimate surface area of reservoirs:

1. Mount the roll of CIR transparencies on the light table.

2. Arrange quads or planimetric maps in the order they are to be used.

3. Locate the photo sequence for the desired area using the photo index.

4. Take scale measurements on several photos (use visible section lines to determine the actual photo scale. Always be sure to measure lines and reservoirs which appear in the "effective area" of the photo. This is the central portion of the photo which exhibits minimum distortion. Measurements taken outside this area are subject to increased error due to distortion.

5. Calculate the factor needed to compensate for scale variations from 2" to the mile. (2 divided by ACTUAL SCALE = FACTOR)

6. Using such landmarks as appear on both (generally drainages and roads), locate the area on the quad or planimetric overlay which ocrresponds to the location of the reservoir on the photo.

7. Carefully draw in the reservoir if it is not already marked on the map, matching drainages as accurately as possible.

8. Record the legal description of the reservoir on a separate list.

9a. If using a stereoscope, focus on the reservoir so the high water line of the reservoir can be located if it is visible. Place the dot grid over the reservoir (use the highest intensity grid which will cover the reservoir) without attempting to line up the dots in any particular manner. Count the dots which fall within the high water line of the reservoir.

9b. If using a magnifying ocular, the grid can be taped or glued to the bottom of the lens so that the whole apparatus can be placed over the reservoir. The grid is placed and the dots are counted as in Step 9a.

10. Repeat the procedure in Step 9 twice (total of three measurements).

11. Read the surface acre equivalent for each measurement from the table corresponding to the grid used, and average the results.

12. Calculate the adjusted (for photo scale difference) surface area using the factor from Step 5. (Ave. S.A. from table X factor = adjusted S.A.)

13. After completing the surface area estimate, mark the reservoir on the quad or planimetric map to indicate that the procedure has been completed. This eliminates duplication of the procedure in cases where the reservoir appears on consecutive photos (CIR transparencies typically overlap above 6 percent from photo to photo).

Once the surface area has been determined, the reservoir capacity can be calculated.

When existing records have a reservoir capacity use the information in the records. In other cases follow the procedures below.

Reservoirs with a surface area of 0.5 acres or less will be assigned a reservoir capacity of 1.5 acre-feet.

The capacity of reservoirs with a surface area of greater than 0.5 acres will be calculated using the following formula:

D x SA x 0.4 = Reservoir Capacity

D = maximum depth or dam height, in feet (maximum to spillway), Item 54 on the coding form

SA = surface area in acres, Item 53 on the coding form

Conversion table of dots to surface acres for the 1/4-inch grid on 1:31680 color IR aerial photography. 1 dot = 0.039 acres

# of dots	SA	# of dots	SA	# of dots	SA	# of dots	SA	# of dots	SA
1	0.04	22	0.86	43	1.68	64	2.50	85	3.32
2	0.08	23	0.90	44	1.72	65	2.54	86	3.35
3	0.12	24	0.94	45	1.76	66	2.57	87	3.39
4	0.16	25	0.98	46	1.79	67	2.61	88	3.43
5	0.20	26	1.01	47	1.83	68	2.65	89	3.47
6	0.23	27	1.05	48	1.87	69	2.69	90	3.51
7	0.27	28	1.09	49	1.91	70	2.73	91	3.55
8	0.31	29	1.13	50	1.95	71	2.77	92	3.59
9	0.35	30	1.17	51	1.99	72	2.81	93	3.63
10	0.39	31	1.21	52	2.03	73	2.85	94	3.67
11	0.43	32	1.25	53	2.07	74	2.89	95	3.71
12	0.47	33	1.29	54	2.11	75	2.93	96	3.74
13	0.51	34	1.33	55	2.14	76	2.96	97	3.78
14	0.55	35	1.36	56	2.18	77	3.00	98	3.82
15	0.58	36	1.40	57	2.22	78	3.04	99	3.86
16	0.62	37	1.44	58	2.26	79	3.08	100	3.90
17	0.66	38	1.48	59	2.30	80	3.12		
18	0.70	39	1.52	60	2.34	81	3.16		
19	0.74	40	1.56	61	2.38	82	3.20		
20	0.78	41	1.60	62	2.42	83	3.24		
21	0.82	42	1.64	63	2.46	84	3.28		

Conversion table of dots to surface acres for the 1/2-inch grid on 1:31,680 color IR aerial photography. 1 dot = 0.156 surface acres

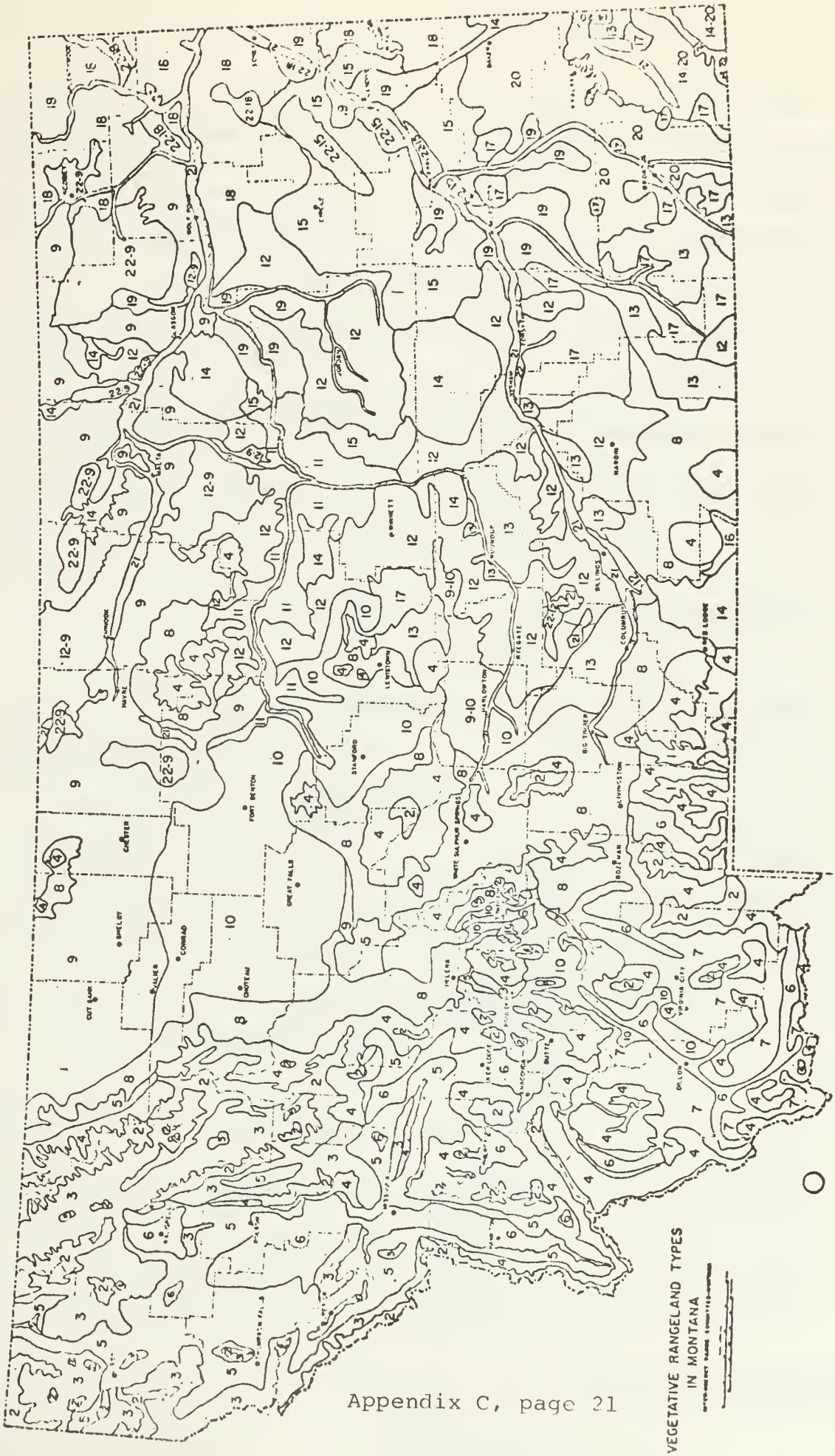
# of dots	SA	# of dots	SA	# of dots	SA	# of dots	SA	# of dots	SA
1	0.2	22	3.4	43	6.7	64	10.0	85	13
2	0.3	23	3.6	44	6.9	65	10.1	86	13
3	0.5	24	3.7	45	7.0	66	10.3	87	13
4	0.6	25	3.9	46	7.2	67	10.5	88	13
5	0.8	26	4.1	47	7.3	68	10.6	89	13
6	0.9	27	4.2	48	7.5	69	10.8	90	14
7	1.1	28	4.4	49	7.6	70	10.9	91	14
8	1.2	29	4.5	50	7.8	71	11.1	92	14
9	1.4	30	4.7	51	8.0	72	11.2	93	14
10	1.6	31	4.8	52	8.1	73	11.4	94	14
11	1.7	32	5.0	53	8.3	74	11.5	95	14
12	1.9	33	5.1	54	8.4	75	11.7	96	15
13	2.0	34	5.3	55	8.6	76	11.9	97	15
14	2.2	35	5.5	56	8.7	77	12.0	98	15
15	2.3	36	5.6	57	8.9	78	12.2	99	15
16	2.5	37	5.8	58	9.0	79	12.3	100	15
17	2.6	38	5.9	59	9.2	80	12.5		
18	2.8	39	6.1	60	9.4	81	12.6		
19	3.0	40	6.2	61	9.5	82	12.8		
20	3.1	41	6.4	62	9.7	83	12.9		
21	3.3	42	6.6	63	9.8	84	13.1		

Conversion table of dots to surface acres for the 1-inch grid on 1:31680 color IR aerial photography. 1 dot = 0.625 acres

# of dots	SA	# of dots	SA	# of dots	SA	# of dots	SA	# of dots	SA
1	0.6	22	13.8	43	26.9	64	40	85	53
2	1.3	23	14.4	44	27.5	65	40.6	86	53
3	1.9	24	15.0	45	28.1	67	41.3	87	54
4	2.5	25	15.6	46	28.8	67	41.9	88	55
5	3.1	26	16.3	47	29.4	68	42.5	89	55
6	3.8	27	16.9	48	30.0	69	43.1	90	56
7	4.4	28	17.5	49	30.6	70	43.8	91	56
8	5.0	29	18.1	50	31.3	71	44.4	92	57
9	5.6	30	18.8	51	31.9	72	45.0	93	58
10	6.3	31	19.4	52	32.5	73	45.6	94	58
11	6.9	32	20.0	53	33.1	74	46.3	95	59
12	7.5	33	20.6	54	33.8	75	46.9	96	60
13	8.1	34	21.3	55	34.4	76	47.5	97	60
14	8.8	35	21.9	56	35.0	77	48.1	98	60
15	9.4	36	22.5	57	35.6	78	48.8	99	61
16	10.0	37	23.1	58	36.3	79	49.4	100	62
17	10.6	38	23.8	59	36.9	80	50.0		
18	11.3	39	24.4	60	37.5	81	50.6		
19	11.9	40	25.0	61	38.1	82	51.3		
20	12.5	41	25.6	62	38.8	83	51.9		
21	13.1	42	26.3	63	39.4	84	52.5		

CONSUMPTIVE USE OF WATER BY LIVESTOCK, BASED ON CARRYING CAPACITY OF RANGELAND VEGETATIVE TYPES IDENTIFIED IN BULLETIN No. 671, MONTANA AGRI. EXPERIMENT STATION, MONTANA STATE UNIVERSITY, 1973

Color Code	Consumptive Use in Acre Ft. per Source per Year	Number of Livestock Served				Numerical Map Areas
		12 month season of use	6 month season of use	season of use	season of use	
	1.387	84	168			6
	1.110	68	134			18
	.925	56	112			8,10,19,20
	.793	48	96			12,13,15
	.693	42	84			17,(9-10),(12-9) (22-12),(22-18)
	.621	38	76			9,(22-9),(22-15)
	.555	34	68			5,7,(14-20)
	.504	30	60			1,19,22
	.396	24	48			14
	.345	21	42			4
	.304	19	38			11
	.277	17	34			16
	.222	13	26			2
	.087	5	10			3


VEGETATIVE RANGELAND TYPES
IN MONTANA

WATER USES FIELD INVENTORY FORM

To be completed in the office:

Record Identifier Number:_____ JDR Number:_____

Project Name:_____

Priority Date:_____ USGS Quad Name:_____

Source Location: T._____R._____Sec._____1/4_____1/4_____

Has the source location been verified by aerial photo? _____

Aerial Photo Number:_____

Apparent condition of source from aerial photo: (functional
(not functional

Source Type: Spring_____, Well_____, Reservoir_____, Catchment_____

Stream for waterspreaders_____

To be completed in the field:

RESERVOIRS

Reservoir Condition: _____Functional

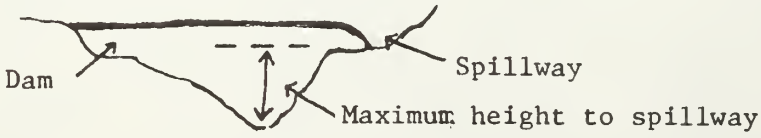
_____Dam or spillway in need of repair

_____Not functional

Reason not functional:_____

Observed uses:_____

Maximum height of dam to the spillway:_____



General comments on the reservoir condition (ex. degree of siltation, depth, turbidity, etc.):_____

_____

_____

_____

SPRINGS

Developed:_____ Yield:_____gpm estimated:_____

Undeveloped:_____ measured:_____ Average of 3 measurements

Observed uses:_____

WELLS

Yield:_____gpm estimated:_____

measured:_____

Gas or electric pump:_____, Windmill:_____, Flowing:_____,

Not in use:_____, Abandoned:_____

Observed use:_____

WATER SPREADERS

_____ Functional

_____ Not Functional

Storage Facilities

Number of diversions from source:_____

Capacity of storage tanks: Tank 1:_____gals.
Tank 2:_____gals.
Tank 3:_____gals.

Total _____gals.

(If there are more than 3 tanks, insert data.)

Capacity of conveyance system: _____cfs.
_____cfs.
_____cfs.

Total _____cfs.

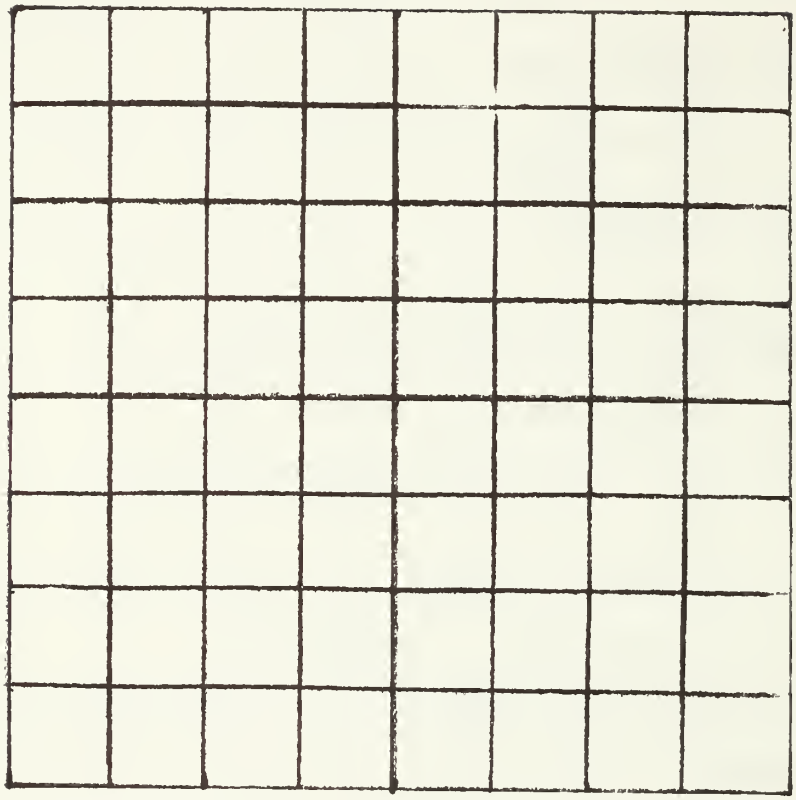
Note how and where source is diverted and used:_____

_____

_____

_____

Section _____ Section _____



Sketch source and diversions

Section _____ Section _____

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

Observer: _____ Date: _____

Appendix D

ADMINISTRATIVE COMPUTER OUTPUT
FORMAT SAMPLE

UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT MONTANA WATER USE INVENTORY

STATE---------MONTANA
COUNTY-------- CARTER
DISTRICT------MILES CITY
RESOURCE AREA-POWDER RIVER
PLANNING UNIT-BOXELDER
NAME OF DEVELOPMENT - PINE HILL DUGOU

NATIONAL WATERSHED CODE----10090208
BLM WATERSHED PLANNING CODE-00
BLM SUB-WATERSHED CODE-----0

STATE WATER DIVISION-
RECORD IDENTIFIER----00645
LAST UPDATE----------7812

SPECIAL COMMENT----------

NAME OF STREAM - E FRK LITTLE POWDER RIV

R PRIMARY TRIB POWDER RIVER R SECONDARY TRIB LITTLE POWDER RIVER TERTIARY TRIB E FRK LITTLE POWDER RIV

FIRST USE - STOCKWATER SECOND USE - 2 THIRD USE - FOURTH USE -

PLACE OF USE

LEGAL SUBDIVISION OR LOT NUMBER	SECTION	TOWNSHIP	RANGE	MERIDIAN	SURVEY TYPE	SURVEY NOTE	SURVEY NUMBER
S2	01	008S	055E	20			

PLACE OF DIVERSION

LEGAL SUBDIVISION OR LOT NUMBER	SECTION	TOWNSHIP	RANGE	MERIDIAN	SURVEY TYPE	SURVEY NOTE	SURVEY NUMBER
S2	01	008S	055E	20			

MEANS OF DIVERSION, STORAGE OR USE

DEVELOPMENT SOURCE	TYPE	DIVERSION RATE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	DAYS USED	SEASON OF DIVERSION
B	SP	0.00	1	1	1	1	1	1	1	1	1	1	1	1	365	

TOTAL USE TYPE	AUTHORITY	CFS	AF	YEAR	NUMBER OF POINTS	STORAGE CAPACITY AF	SURFACE ACRES	DAM HT	TYPE	STORAGE TANK GALLONS	CONVEYANCE CAPACITY CFS	TYPE
USE RIGHT		0.0	0.0		1	1.0						

IRRIGATION ACRES	PLACE OF INSTREAM USE STREAM MILE START	END	AMOUNT OF INSTREAM FLOW OR SCHEDULE OF FLOWS-CFS OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP	NUMBER OF LIVESTOCK	FIRST USE ACRE FEET	SECOND USE ACRE FEET	THIRD USE ACRE FEET
0	0.0	0.0					

EVIDENCE OF WATER RIGHTS

PRIORITY DATE	APPLICATION DATE	APPLICATION TYPE	ADJUDICATION DATE	NAME OF RECORDED APPROPRIATOR	NUMBER OF DECREE OR FILING	BOOK NO	PAGE NO	RECORD TYPE
55				BUREAU OF LAND MANAGEMENT				

REMARKS 1 REMARKS 2 REMARKS 3 REMARKS 4

WILDLIFE (CONSUMPTIVE AND NON-CONSUMPTIVE), MAINTENANCE OF RIPARIAN VEGETATION, SEEPAGE AND STORAGE LOSSES, MAINTENANCE OF WATER LEVEL DURNING DROUGHT PERIODS

UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT MONTANA WATER USE INVENTORY

STATE---------MONTANA
COUNTY-------- CUSTER
DISTRICT------MILES CITY
RESOURCE AREA-POWDER RIVER
PLANNING UNIT-CUSTER
NAME OF DEVELOPMENT - DIVIDE WELL

NATIONAL WATERSHED CODE----10090200
BLM WATERSHED PLANNING CODE-00
BLM SUB-WATERSHED CODE-----0

STATE WATER DIVISION-
RECORD IDENTIFIER----01533
LAST UPDATE----------7812

SPECIAL COMMENT----------
NAME OF STREAM -

L PRIMARY TRIB POWDER RIVER SECONDARY TRIB TERTIARY TRIB

FIRST USE - STOCKWATER SECOND USE - 2 THIRD USE - FOURTH USE -

PLACE OF USE

LEGAL SUBDIVISION OR LOT NUMBER	SECTION	TOWNSHIP	RANGE	MERIDIAN	SURVEY TYPE	SURVEY NOTE	SURVEY NUMBER
				20			

PLACE OF DIVERSION

LEGAL SUBDIVISION OR LOT NUMBER	SECTION	TOWNSHIP	RANGE	MERIDIAN	SURVEY TYPE	SURVEY NOTE	SURVEY NUMBER

MEANS OF DIVERSION, STORAGE OR USE

DEVELOPMENT SOURCE TYPE		DIVERSION RATE	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	DAYS USED	SEASON OF DIVERSION
B	SP	0.00	I	I	I	I	I	I	I	I	I	I	I	I	365	

TOTAL USE TYPE	AUTHORITY	CFS	AF	YEAR	NUMBER OF POINTS	STORAGE CAPACITY AF	SURFACE ACRES	DAM HT	TYPE	STORAGE TANK GALLONS	CONVEYANCE CAPACITY CFS	TYPE
USE RIGHT		0.0	.8		1	0.0						

IRRIGATION ACRES	PLACE OF INSTREAM USE STREAM MILE START	END	AMOUNT OF INSTREAM FLOW OR SCHEDULE OF FLOWS-CFS OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP	NUMBER OF LIVESTOCK	FIRST USE ACRE FEET	SECOND USE ACRE FEET	THIRD USE ACRE FEET
0	0.0	0.0					

EVIDENCE OF WATER RIGHTS

PRIORITY DATE	APPLICATION DATE	APPLICATION TYPE	ADJUDICATION DATE	NAME OF RECORDED APPROPRIATOR	NUMBER OF DECREE OR FILING	BOOK NO	PAGE NO	RECORD TYPE
				BUREAU OF LAND MANAGEMENT				

REMARKS 1 REMARKS 2 REMARKS 3 REMARKS 4

WILDLIFE (CONSUMPTIVE AND NON-COMSUMPTIVE), MAINTENANCE OF RIPARIAN VEGETATION, SEEPAGE AND STORAGE LOSSES, MAINTENANCE OF WATER LEVEL DURNING DROUGHT PERIODS

Bureau of Land Management
Library
Denver Service Center

VER'S CARD

	OFFICE	DATE RETURNED

(Continued on reverse)

BLM LIBRARY
SC-324A, BLDG. 50
DENVER FEDERAL CENTER
P. O. BOX 25047
DENVER, CO 80225-0047

DATE DUE

GAYLORD			PRINTED IN U.S.A.